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CONTENTS

	Pages
1 A Study of Creativity of the Professional and Non-professional College Students <i>—K. R. Mallappa and Ashok A. Pal</i>	... 1
2 Ear Lobe Attachment in Shantigram and other Parts of Karnataka, South India <i>—V. Rami Reddy</i>	... 7
3 Indian National Movement—A resume <i>—G. R. Kuppuswamy</i>	... 15
4 Unique Medieval (Natha ?) Temple in Marugadde, Dist. North Kanara <i>—A. Sundara</i>	... 23
5 A Sculptural Panel of Yasodhara Story at Pattadakal <i>—Shrinivas Padigar</i>	... 30

6	The Date of the Lad Khan	...	33
	— <i>S. Rajasekhara</i>		
7	Patterns and Problems of Political Leadership in Karnataka	...	41
	— <i>R. T. Jangam</i>		
8	Political Economic Models and the Indian Case: Some Preliminary Considerations	...	48
	— <i>K. Raghavendra Rao</i>		
9	A Copper Coin of the Hoysalas —A Note	...	54
	— <i>C. V. Rangaswami and B. S. Patil</i>		
10	Local-Self Government in Karnataka with Special Reference of Urban Problems	...	57
	— <i>V. S. Patil</i>		
11	Can We be of Any Service to Our Village Folk ?	...	69
	— <i>Gopala Sarana</i>		
12	Education and Leadership	...	84
	— <i>V. T. Patil and B. C. Patil</i>		
13	Our Linguistic Problem	...	91
	— <i>V. T. Patil and B. C. Patil</i>		
14	How are Mathematical Propositions Necessary ?	...	100
	— <i>L. C. Mullatti</i>		
	Book Reviews	...	117
	Our Contributors		125

A STUDY OF CREATIVITY OF THE PROFESSIONAL AND NON-PROFESSIONAL COLLEGE STUDENTS

**K. R. Mallappa
Ashok A. Pal**

Since the world war II major changes that has taken in all countries over the Globe is Industrialization which has changed the material pattern of the society. The recent advances in Science and technology has been quite pervasive so much so that even predominantly agrarian developed countries like India have been feeling the change in the pattern of society. The rapid growth of population with decreased rate of mortality has created new problems of food, clothing, housing, health, education, transportation, communication and energy. Invention and innovation in the various technological fields for achieving the desired goals is inevitable. Therefore it is essential for encouraging creative activities in Industrialized society which demands individual skills highly specilized in content and application. One of the important propositions that emerged out of a conference held at wood's Hole Cape Card was that "the art of Creative Engineering has been orphaned in the Engineering Schools" Seminar on creative Engineers design (1973) was sponsored by quality improvement programme and faculty association held at Indian Institute of Technology, Madras, in its proceedings mentions that in our educational system students are always asked to solve the given problemes. We are rarely encouraged to start from the scratch, where the field is open for many possibility to form a problem. To-day we observe numerous graduates finding themselves out of place in their jobs because they are not given "Tailor made problems, but situation with full of problems." Hence educationists must give due concern to the problem of creativity. Identification of creative Talent and its stimulation in the professional courses is very important.

Creativity is defined as the invention of something, production of something new. Till recently it was vague and elusive and mistical. But as a result of Educationist and psychologist giving due consideration to the aspect of creativity, it has come to be understood in clear perspective.

Quite a number of studies on creativity has been conducted in the West as well as in India and its relation with cognitive ability personality correlates (Traits), anxiety, achievement, etc. Creativity is an ultimate human assest (Toynbee, 1969) needs to be identified, stimulated and nourished during child-hood, if we are serious about developing fully functioning,

mentally healthy, well educated and vocationally successful individual. Identification of creativity cannot be left to chance (M. K. Raina, 1974). There is no universally agreed definition of creativity. Usually creativity refers to novelty and originality in one's product, process and experiences. Guilford's view is widely accepted who believes it to be "Divergent Thinking Ability" involving sensitivity to problem, flexibility, fluency, originality, elaboration and redefinition. Creativity is the nation's valuable assets. Paramesh, (1965) found that creative individuals have high theoretic and esthetic values.

Research on creativity reveals that they are multi-dimensional, involving analysis of creative process, product, person, situation and examination of socio-cultural variables influencing the development of creativity. Research conducted to study the relationship between creativity, birth order and number of siblings are very few. Dutta (1967-68), studied two different samples of 526 young scientists and 573 male adolescents and found that 1st born are not creative. Jawa (1971) reports no relation between birth order and creativity. Fillis, Clark, Jone and Roe reports that a greater number of 1st born among eminent persons than those born on other ordinal positions.

Identification and measurement of creativity will lead not only to a greater understanding of a person. But would also provide a more adequate basis for forecasting something about his future (Heist, 1958). Getzels and Jockson reports positive correlation between conventional intelligent test and creativity.

J. Eindhoven and W. E. Vinacke found that artists have more control over their creative process than non-artists. M. K. Raina studied creativity in Indian student and found out between high and low creative groups on measures of cognitive abilities, personality traits, anxiety, achievement and socio-economic status. Success in Teaching has been noted to relate to originality, versatility, initiative, imaginative, adventurousness, drive, considerateness and intelligence. Haplon (1951), Munrow, (1952), Ryans (1952), Burken and Stone, (1975), creativity has become very stimulating term and research have been concerned with commercial and political need motives. Torrance has called attention to the role of creativity in meeting stressful situation and fostering the mental health of the individual. Patric (1953) says that stifling of creativity cuts at the very roots satisfaction in living and ultimately creates tension and maladjustment.

The Present Study :

The present study is an attempt to find out the difference between the professional and non-professional students in creativity. It is also attempt

pted to find out and analyse the difference between the two groups in creativity, with reference to variables like rural, urban, birth order, parents occupation and family structure.

Hypothesis :

1. There is no significant difference in creativity between the two groups.
2. There is no significant difference in creativity with respect to the variables considered between the two groups.

Materials :

Creativity test standardized for the Indian condition by Smt. Kuppammal. The test is based on Guilford's Theory. It means it measures factors like fluency, flexibility and originality.

Sample :

The sample was drawn from professional and non-professional colleges at random. The total in each group is two hundred. The professional sample is drawn from Medical and Engineering college. The non-professional sample is drawn from other general courses. The creativity test was administered to these groups.

Statistical Analysis :

To study the relationship of creativity between the two groups and the variables taken in to consideration, mean variance, S. D. and Z values were calculated.

Analysis of the Findings :

Table 1 showing the statistical measures of creativity scores of professional and non-professional college students.

Statistical Measure		Professional Group	Non-professional Group	Z Value
A	Mean	18.75	18.60	4.9
	S.D.	13.20	10.08	

This shows that there is not much difference in the mean score of creativity. But the S.D. suggests that there is a large difference in the creativity of professional and non-professional students. The variability is more in the case of professional group.

The obtained Z value is 4.9 which is greater than 1.96 and significant at 0.05 level. There is significant difference between the professional and

non-professional college students in their creative ability. Hence the hypothesis is rejected.

An attempt was made to find out any significant difference exists between the professional and non-professional groups coming from rural area.

Table 2:

	Mean	S.D.	Z Value
Professional Group	18.06	6.81	0.46
Non-professional Group	18.46	6.64	

The above scores indicate that there is no significant difference either in the mean value or variability. The Z value is less than .96 at .05 level of significance. This shows that there is no difference among the two groups coming from the rural area.

With regard to the two groups coming from urban area the difference is found in their creative ability. The obtained scores were given below.

	Mean	S.D.	Z Value
Professional Group	15.12	7.07	2.5
Non-professional Group	18.60	6.94	

The above scores indicate that there is significant difference in the two groups coming from urban area. This might be due to the fact that the opportunities and facilities are more for people living in urban area to develop their creative talent. This may lead to a stimulating situation and hence we find the difference.

An analysis was made to find out the influence of parents occupation on creativity of the two samples selected. The statistical measures obtained showed no difference. The Z value is 1.21 which is not significant.

The scores obtained for the group whose parent's occupation is business are the following.

	Mean	S.D.	Z Value
Professional Group	20	6.32	2.8
Non-professional Group	12	5.67	

The Z value obtained is 2.8 which is significant at .05 level. The sample whose parents occupation is business has considerable influence on

the development of creativity. In the case of sample whose parents are employed in good position also showed significant difference between the two groups. The Z value obtained in this case is 2.10 which is significant at .05 level. This shows the nature of the parents employment has greater influence on creativity.

With regard to the sample whose parents occupation is other than the one's discussed, that is lower occupation showed no significant deference between the two groups. The Z values of 1.11 is not significant at .05 level. This might be due to the lack of oppurtunity or other factors which needs to be explored. Further analysis with regard to first born and later born professional and non-professional group did not yeild any significant difference. The Z value of the former is 1.5 and latter is 1.3 which is not significant at .05 level.

This shows that the order of birth has nothing to do with the creativity of the individual which contradicts Jone and Roe's findings.

The family structure has direct influence on the creativity of the professional and non-professional group.

The professional group coming from joint or single family has more creative talent than the non-professional group. The Z value from the former is 4.1 and the latter is 4.8 which is quite significant.

Conclusions :

1. There is significant difference between professional and non-professional students with regard to the creativity.
2. The rural group shows no significant difference.
3. The urban group shows significant difference.
4. The sample whose parent occupation is business and good employment shows difference.
5. The order of birth has not showed any difference.
6. The structure of the family has influence on the creativity of the professional and non-professional groups.

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EAR LOBE ATTACHMENT IN SHANTIGRAM AND OTHER PARTS OF KARNATAKA, SOUTH INDIA*

V. Rami Reddy

I. Introduction :

Attached ear lobe "formerly regarded as a stigma of criminality or insanity" (Gates, 1959) was first studied by K. Hilden in 1922, when he pointed out that this trait is a dominant one. This classic work was followed by that of Carriere, Quelprud, Powell and Whitney, Wiener, Kloefer, Suzuki, Gates, Lai and Walsh and a host of others. In the last one-and-a-half decades considerable interest has been evinced in the investigation of this physical trait by a number of geneticists (Dutta and Ganguly, 1965; Lai and Walsh, 1966; Basu, 1966; Malhotra, 1966; Malhotra and Bhanu, 1967; Chattopadhyay 1968; Bhasin, 1969; Tiwari and Bhasin, 1969; Singh and Malhotra, 1970), whose works show a higher incidence of attached lobe among the people of south and southeastern India than in the northern region. The incidence of this type of lobe in certain African populations has been found to be higher than that of Europe. All these investigations indicate a broad ethnic difference for the trait. But as yet the importance of its striking variation in different populations is little known.

In this paper, I would like to present new data on this trait in four endogamous groups of a Karnataka village, Shantigram, to evaluate its variation in these populations. The results of the present study are further compared with those of the other populations of the same geographical region studied earlier (Basu, 1968) in order to assess whether populations of the same caste hierarchy are homogeneous for the trait and whether the difference between them and other caste/religious groups are significant at all.

II. Material And Methods :

Shantigram village with a population of 2272 persons (in 1975), is situated about 13 km. to the east of the town of Hassan, the taluk and district headquarters of the same name, on the national highway to the city of Bangalore, the capital of the Karnataka state. A total of 242 unrelated subjects, 144 males and 98 females, constituted the sample for the study of

* This is a revised Version of the paper read at the 64th Session of the Indian Science Congress held in Bhubaneswar under the joint auspices of the Utkal University and Orissa University of Agriculture and Technology from January 3 to 7, 1977.

the types of ear lobe attachment. The two sexes were studied separately. The subjects belong to four endogamous groups. Of these 46 are Ayyangar Brahmins (24 males and 22 females), 74 Gangadikara Vakkaligas (46 males and 28 females), 77 Maggada Shettars (52 males and 25 females), and 45 Adikarnatakas (22 males and 23 females). A detailed ethnographic account of all these groups is given elsewhere (Rami Reddy, 1977). All the individuals observed for the trait range in age from about 7 to 50 years. Most of them falling between 7 and 16 years were drawn from various educational institutions. Persons beyond 16 years of age were tested in their respective houses.

For the sake of convenience, the well known two types of ear lobe were classified : (1) attached lobe, when it entirely adhered and formed an angle of 90° or more at the point of attachment with the cheek, and (2) free lobe, when it was completely separate and bent at an acute angle on the cheek producing a notch. The frequency of the so called 'intermediate types' has been included in that of 'attached lobe' for a meaningful comparison with the neighbouring populations. The subjects chosen for the purpose were tested by carefully pulling apart their ear lobes to make sure whether they were attached or free. In order to test the significance of differences among various groups, chi square values were worked out by G-test with the help of Woolf's G-tables (1957) and the various levels of probability were obtained from the tables of Fisher and Yates (1953).

III. Results and Discussion:

1. Inter-sex and inter-group differences :

In table I are given the frequencies and percentages of the attached and free ear lobes in the males and females of the four populations of Shantigram under study. Out of the total of 242 individuals, the frequency of those with attached ear lobe (168 individuals, 69.42%) is more than twice that of free lobe (74 individuals, 30.58%). Both males and females tend to show similar incidence of the two types of ear lobes. An examination of the individual groups for the trait shows that the frequency of attached ear lobe ranges from 55.56% in A.K to 77.03% in G.V. The frequency ranges from 54.55% in A.K males to 79.17% in A.B males, whereas in females it varies from 56.52% in A.K. to 82.24% in G. V. respectively.

Chi-square values and their probability levels for the inter-sex and inter-group differences are given in tables I & II. In all four groups the inter-sex differences in the incidence of ear lobe types are statistically insignificant. The difference between the males and females of all four groups combined is also insignificant ($X^2 = 0.0000$, d. f. = 1). Inter-group comparisons made for

the trait indicate that only group G. V. differs from A.K. significantly (at 1% level of probability) while the other groups show similar distribution of the trait (table II).

2. Comparison with other populations of Karnataka :

Table III shows the frequencies and percentages of attached ear lobes in different populations of Karnataka including our own. A cursory look at the values given in the table reveals the occurrence of striking similarities for the trait in various populations including their individual sexes. The mean frequency in females of all the populations (65.97%) for the attached type of ear lobe is almost similar to that of males (65.74%). Both these values are close to the mean of all the groups (66.75%) for the trait. In males, the percentage ranges from 46.3 in Muslims to 79.17 in Ayyangar Brahmins while in females it lies between 54.9 in Muslims and 82.14 in Gangadikara Vakkaligas. When males and females are combined, it is found that the frequency varies from 50.60% in Muslims to 77.03% in Gangadikara Vakkaligas. The range of variation is small with the lowest frequency found in the Muslim males and females.

IV. Summary and Conclusion:

In the present paper observations on the types of the ear lobes attachment among 242 unrelated individuals of both sexes belonging to four endogamous groups, affiliated to different caste groups of Shantigram and other populations of Karnataka, South India have been reported. The frequencies of attached ear lobe have been found to be 73.91, 77.03, 67.53 and 55.56 percent among the Ayyangar Brahmins, Gangadikara Vakkaligas, Maggada Shettars and Adikarnatakas respectively. Both inter-sex and inter-group differences among them are insignificant. Variations in the incidence of attached ear lobe in various populations of Karnataka are discussed.

V. Acknowledgement:

I must express my sincere thanks to my student, Sri A. Papa Rao, U. G. C. Junior Research Fellow and Sri S. Bhaskar, Technical Assistant of the Department for their assistance in the statistical treatment of the data.

TABLE II

Inter-group X^2 values for the Ear Lobe types in four populations of Shantigram, Karnataka

S.No.	Populations compared	Inter-group difference X^2 (d.f. = 1)	Probability
1.	Ayyangar Brahmins X Gangadikara Vakkaligas	0.1492	$0.70 > P > 0.50$
2.	Ayyangar Brahmins X Maggada Shettars.	0.5648	$0.50 > P > 0.30$
3.	Ayyangar Brahmins X Adikarnatakas	3.3887	$0.10 > P > 0.05$
4.	Gangadikara Vakkaliagas X Maggada Shettars.	1.7031	$0.20 > P > 0.10$
5.	Gangadikara Vakkaligas X Adikarnatakas	12.9302*	$0.001 > P >$
6.	Maggada Shettars X Adikarnatakas	1.7361	$0.20 > P > 0.10$

* Significant at 1% level of probability.

TABLE III

**Distribution of Attached Ear Lobe in the populations of Karnataka,
South India.**

S.No.	Population	Sex	Size of sample	Percentage of attached ear lobe	Author(s)
1	Ayyangar Brahmins(A.B.)	M	24	79.17	Present study
		F	22	68.18	
		M + F	46	73.91	
2	Gangadikara	M	46	73.91	,,
	Vakkaligas (G.V.)	F	28	82.14	
		M + F	74	77.03	
3	Maggada Shettars (M.S)	M	52	67.31	,,
		F	25	68.00	
		M + F	77	67.53	
4	Adikarnatakas (A.K.)	M	22	54.55	,,
		F	23	56.52	
		M + F	45	55.56	
5	Smartha Brahmins (S.B.)	M	116	62.9	Basu, 1968
		F	108	63.9	
6	Madhva Brahmins (M.B)	M	105	61.0	,,
		F	100	66.0	
7	Iyengar Brahmins (I.B)	M	104	69.2	,,
		F	110	64.6	
8	Lingayaths (L)	M	106	68.9	,,
		F	105	61.9	
9	Vakkaligas (V)	M	121	70.3	,,
		F	105	71.4	
10	Adikarnatakas (A.K.)	M	102	69.6	,,
		F	106	67.9	
11	Muslims (M)	M	108	46.3	,,
		F	102	54.9	

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INDIAN NATIONAL MOVEMENT—A RESUME

G. R. Kuppaswamy

Introduction :

India's struggle for Freedom did not actually begin with the foundation of Indian National Congress in 1885. It is equally difficult to maintain that the Freedom struggle was carried out entirely by the Congress. In other words, the history of the Indian National Movement is not merely the history of the Congress. But it is true that with the establishment of the Congress alone, the first phase of the organised struggle began. Earlier attempts were sporadic and localised though such pioneering efforts did contribute positively to the success of the movement. Again, while assessing the work of the Congress which played a major role in the Freedom struggle, the work of the other organisations cannot be underestimated.

The National Movement is to be analysed with reference to the (A) Factors and (B) Phases.

(A) Factors :

(i) Impact of Western Culture :

It was English education which replaced the blind faith in ancient traditions, beliefs and conventions by a spirit of rationalisation. It awakened a sense of nationalism among the people and enabled them to evolve political ideals and organisation.

(ii) Religious and Social Reforms Movements :

Raja Ram Mohan Roy was one of the earliest religious and social reformers to revolt against medieval tyranny by organising the Brahmosamaj. Again Aryasamaj proved to be the foremost agency for promoting a sturdy independent nationalism in the Punjab. The Hindu nationalism was also placed on a secure basis by the Revivalist movement. The Theosophical movement provided the impetus for the development of nationalism. The social reformers directed their efforts towards the amelioration of the condition of women and the weaker sections of the society, apart from temperance and charity. The organisation of the *Prarthan, a Samaj*; the great controversy over the 'Age of Consent Bill' and all these indicated that political indepen-

nce was essential for real reform. There was also much stress laid on inter-linking reforms for progress.

iii) Literature :

The growth of national consciousness was influenced to a considerable extent by the growth of vernacular literature, Bengali literature in particular. These works related to social and political themes and based on the model of the English literature. Isvarchandra Vidhyasagar, Bankim Chandra Chatterji, Rabindranath Tagore are some of the many notable literary men who helped Bengali language and literature to be one of the highly developed instruments of the political awakening. The services of the Christian missionaries also needs to be remembered. The Bengali literature served the model for the production of works in the other regional languages as Assamese, Oriya, Hindi, Marathi, Gujarati, Tamil, Telugu, Kannada, Malayalam and Urdu.

iv) Press :

The press which had its beginnings again in Bengal, through the vernacular weekly and daily newspapers reached the masses to an unexpected degree. Some of the editors like H. C. Mukerji gave an impartial exposition of the evils of the British rule. Some of the papers, particularly in English language were deliberately British-oriented. But by and large they initiated the move for the liberty of press which was challenged so often by the British Indian authorities. Apart from the press ordinances some of them particularly the 'Vernacular Press Act' were directed against newspapers which promoted nationalistic feelings. The most prominent papers and weeklies of particular interest to the National Movement were the *Samachar Darpana* and *Hindu Patriot*, apart from those published from Bombay, Delhi and Madras.

v) Political Organisations :

Apart from the growth of concepts, political societies and clubs came to be organised either for the purpose of educating the people both in England and India about the country's problem or for constitutional agitation. Raja Ram Mohan Roy was the pioneer. P. K. Tagore started the 'Reformer' to propagate political views. Dwarkanath founded the 'Land-holder's Society'. Adams started the 'British India Society' in England in 1839 and a Bengal branch in 1849. Both the Land-holders and British India Society were amalgamated to form the British India Association in 1851. It developed an All-India outlook. Similar societies in the rest of India came to be founded. It was Bengal which gave the lead, soon spread to other provinces. It is true: 'What Bengal thinks today, the rest of India thinks tomorrow'.

B) Phases :

The history of the Indian National Movement can be broken up and studied under the following phases: (i) 1885–1905, (ii) Swadeshi Movement, (iii) 1906–1920, (iv) Non-Cooperation Movement, (v) 1921–1929, (vi) Civil Disobedience Movement, (vii) 1931–1942, (viii) Quit India Movement and (ix) 1942 onwards.

i) 1885–1905 :

The foundation of the Indian National Congress in 1885 may be regarded as the first organised attempt to challenge the established rule of the British power in India though this should not by any means belittle the earlier attempts. The genesis of the Congress is shrouded in mystery. The part played by A. O. Hume has been a matter of much controversy. He is believed to be the initiator though the National Conference which met at Calcutta in 1883 forestalled the Congress in its aims and objectives. It was this conference which was responsible for the emergence of the idea of 'congress' which took practical shape in 1885. Though Hume deserves the credit for organising the 'Congress' he was not moved by any nationalistic or patriotic motives. India was seething with discontent. It was mainly to ensure political stability and to arrest the progress of revolution that Hume took up the cause of founding the Congress. It had also the blessings of Dufferin. It appears that the Congress was intended to be an instrument for safeguarding the British rule in India. But very soon when its real intentions were discovered the later Viceroys did not sympathise with its continued existence. Dufferin himself changed his attitude from one of friendliness to one of hatred and contempt. He described the Congress as a 'microscopic-minority'. The moderate aims of the Congress also became clear from the fact that the first President W. C. Banerji did not subscribe to the extremist views which prevailed in Bengal as represented by S. Nath. Bombay and not Calcutta was chosen as the venue of the Congress. The objects of the Congress as stated in the 1st session were limited and moderate to acquaint themselves with the pace of progress, to draw a programme of political activities and to oppose by constitutional method official acts. A survey of the history of the Congress for the first 20 years reveals certain interesting features. It quickened political consciousness. The membership rose and stood at 1889 in the year 1889 when another session was held in Bombay in the same year under the Presidentship of Wedderburn. The Congress also fought for reformed councils with greater participation of Indians. Though there was no substantial grant of constitutional reforms, political advancement was helped. The Congress gave a sense of reality to the ideal of Indian unity. It provided the essential leadership though its

achievements fell short of its ideals. This could be seen from the fact that this period gave birth to National Revolutionary organisations which condemned the policy of 'mendicancy' adopted by the Congress. The Revolutionary movement which again moved in two directions, terrorist and extremist, represented the new spirit gathering momentum about the same time. While for instance B. G. Tilak represented the extremist revolutionary views, he could not be classed amongst men like W. B. Phadke or Chapekar brothers, or the founders of **Anusasan Samiti**. Tilak stood for '**Swaraj**' (as it was then understood) and self-effort or passive resistance which was to play an important role in the history of the Congress, but later. He also made use of the national festivals as '**Ganapati**' festival and the organ '**Kesari**' to awaken the masses. Throughout this period the British assumed an attitude of hostility and considered the demands outrageous. The Viceroyalty of Curzon was designed to counteract the Congress. The Congress did another great service of educating the English people on India. A number of committees were formed in England to organise public opinion against the British rule.

(ii) **Swadeshi Movement:**

An important and revolutionary stage was reached in the history of the Indian National Movement in the year 1905 when the Boycott and Swadeshi movement was launched as a counter-offensive to the policies and work of Lord Curzon, especially relating to the question of the Partition of Bengal. It meant a departure from the traditional methods. There was not much that was new because for economic reasons, the Boycott of British goods and encouragement of native or *Swadeshi* industries had been adopted even earlier. The uniqueness lay in the fact that it now came to be adopted for political purposes, to fight for the common cause of Nationalism. For instance the concept of 'Boycott' came to be applied to every field of activity and developed into an idea of Non-Cooperation with the distant goal of freedom. Similarly *Swadeshi* stood for the encouragement of everything Indian, apart from industries. It applied especially to the field of education. Both the matters were complementary. Such tactics as 'peaceful picketing', social excommunication and levy of fines, applied for the first time became the normal features of the movement in days to come. The Government also made, a beginning in the employment of such methods as lathi charge, deportation, conviction, divide and rule, fines, which were to assume greater proportions in days to come. This Movement assumed before the end of the year an all-India character, particularly the education programme. The Movement created self-confidence. Materially it gave an impetus for the revival of indigenous industries, National System of education and a more effective weapon for continuing the Freedom struggle. People were roused to action and the whole movement breathed an

air of realism. But at the same time the methodology did not find favour in all the sections of the Congress with equal force and ultimately resulted in the 'split' into Moderate and Extremist groups. Some of the leaders like G. K. Gokhale did not subscribe to the 'Boycott' concept though they were inclined to promote indigenous industry. They did not like to give up the constitutional method to one of passive resistance. They also believed in reforms under the aegis of British rule.

The 1906 session may be regarded as the last session before the split, which put its unanimous approval on the *Swadeshi* resolution. The Surat Congress of 1907 brought about the division in ranks which could not be bridged till 1920. The intervening period is one of passivity on the part of the 'official' Congress while extremist and terrorist elements took up the cause of the struggle, and nothing significant emerged out of their efforts. It may be regarded as a period of trial and error before Congress ventured on the next line of attack, the Non-Cooperation Movement under the leadership of Mahatma Gandhi.

(iii) Non-Cooperation Movement, 1920:

The Non-Cooperation Movement was the direct outcome of the Kilafat agitation and the Punjab issue played a secondary role, a third issue of independence added to them. It was not the All-Parties Conference as reported by the C.D. Enquiry Committee which launched it. The view of R. G. Pradhan in this connection seems to be misleading. No Hindu leader other than M. K. Gandhi took active part in the movement. Gandhiji's attempt to make the movement as the ideal of the Congress and much more than the Kilafat weapon materialised only when the Congress session at Calcutta passed a resolution moved by him. Non-Cooperation was a measure of discipline and self-sacrifice and involved a number of items. It was really a personal triumph for Mahatma Gandhi and marked a new era in India's struggle for Freedom. It was a turning point in the History of Congress. It was again one of the somersaults of Gandhi who earlier had spoken of co-operation with the British. To a certain extent by focussing attention on Kilafat—highlighted most, it went back on the fundamental issue of '*Swaraj*'. The Nagpur session of the Congress ratified the resolution of the special Calcutta session. It meant triple boycott—legislature, courts and educational institutions. The apology offered by Ali Brothers for their inciting speeches weakened the movement. The practice of violence at Bombay and elsewhere during the visit of Prince of Wales in 1921, boycotted by the Non-cooperationists, led to its suspension by Gandhi. Though there was a revival in the shape of No-tax campaign at Bardoli and again at Guntur, the ugly incident at Chauri Chaura on February 5, 1922, involving the lives of 22 policemen,

led to the end of the movement. The programme of constructive work was continued. The suspension of the movement caused frustration leading to inertia of the masses in its future programme. It was the greatest blunder of Mahatma Gandhi and the feeling of repulsion against his leadership was taken advantage of by the British Government which arrested Gandhi. The Non-Cooperation Movement was a failure. It awakened among the people urge for *Swaraj*, and their preparedness to undergo any hardship or privation. The movement collapsed but it inspired the nation to fight with a new hope and faith. The Congress movement became a mass movement and genuinely revolutionary organisation overnight.

(iv) Civil Disobedience Movement 1930 :

The half-hearted and unconvincing attempts of the British Government to meet the genuine demands of the people of the country evidently led the Congress to fight for '*Purna Swaraj*' or complete independence and again, under the leadership of Mahatma Gandhi. The momentous Lahore session of the Congress ended with an Independence Pledge on December 31, 1929 on the banks of the river Ravi when the Tricolour flag was hoisted. The limited demand for Dominion Status was rejected and the renewal of C.D. movement decided upon, though no programme was drawn up; 26th January came to be observed as the day of *Purna Swaraj*. The symbolic violation of the salt laws by undertaking a 24 days journey to Dandi, famous as 'Dandi March' on foot by Mahatma Gandhi and a limited group of followers, gave the call to the nation to undertake similar steps all over the country. The Dandi March which commenced on March 12, 1930 and ended in the technical breach of salt law on 6th April, 1930, is much more than of passing significance. It attracted world-wide attention and it enabled the congress to establish close and intimate contact with the villages. The movement also meant breach of other irksome laws, as the forest laws, prohibition and boycott of foreign goods. Mahatma Gandhi was arrested before he could lead the batch to Darshana resulting in the attack on Wadla salt depot by as many as 2,500 volunteers. The response from women was tremendous. The No-tax campaign in N. Kanara, as part of the movement needs special mention. The Movement faded by May 1934 and it proved to be the last led by Gandhi alone. Gandhiji's decision to suspend the movement even before the results were known, was condemned and the need for more radical leadership felt. But the congressmen as a whole continued to follow his leadership and approved his policy. The British government committed atrocities—shooting and lathi-charge.

(v) Quit Indian Movement, 1942:

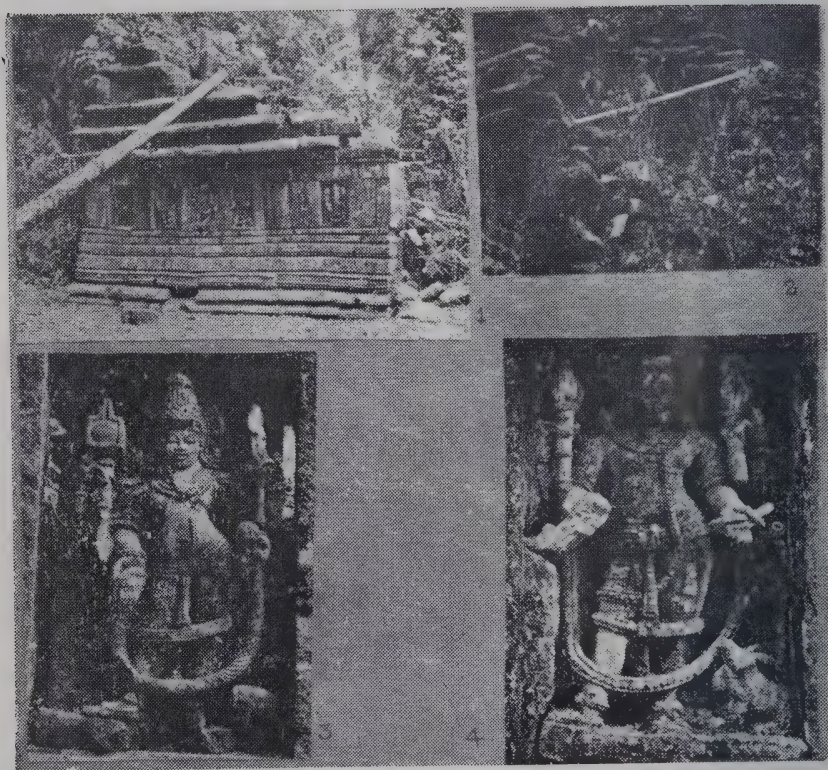
The declaration of war in 1939 once again brought to the fore-front the issue of India's Independence and the fulfilment of the British pledges

towards the country. It is true that it is the radical element in the Congress the Forward Block led by Subhaschandra Bose, which boldly presented the issue of India's Freedom and refused to cooperate in a war which denied it to the country. In fact, Nehru and Gandhi, it is said, initially assumed a sympathetic attitude towards the British war-efforts which stood in contradiction with the earlier stand taken by the Congress at Haripura and Tripura. In fact Mahatma Gandhi did not want to win India's Freedom at England's cost. It was the unsatisfactory and vague nature of the British policy declarations, as noticed in the August offer (1940), the categorical statement of Churchill that the Atlantic Charter was not applicable to India, the Japanese invasion and the failure of the Cripps Mission which could offer "Post-dated cheque on a crashing Bank", that led the Congress to decide to fight to a finish.

A clue to the 'Quit India' Movement and the resolution passed by the Congress Working Committee on July 14, 1942, ratified by the A. I. C. C. in Bombay on 8th August, 1942, is provided in the the '**Harijan**' issue of April earlier. Gandhi hinted that the safety and interest of both Britain and India lay in the orderly withdrawal of British from India. The A. I. C. C. sanctioned the starting of the mass Civil Disobedience movement under the leadership of Mahatma Gandhi on the widest possible scale. Contrary to expectations, Government swept into action and arrested Mahatma Gandhi and other prominent leaders. It also declared the Congress unlawful and its offices at Allahabad were sealed. Congress funds were confiscated. The Government issued a communique justifying its action. There was however a profound miscalculation on the part of the authorities regarding the future of the movement. Though leaderless, the movement assumed a serious but very soon a violent turn. Besides **hartals**, strikes and processions, the mobs indulged in destructive activities, mainly directed against transport and communications. Office buildings were set on fire. Individual instances of acts of heroism, courage, patriotism and sacrifice were in evidence. But it was the violent turn to the movement which made the task of Government simple while it meant a farewell to the ideal of Non-Violent Non-cooperation to which the Congress and Mahatma had attached great importance. It was perhaps the last instance in the History of Freedom Struggle when Non-Violence was still practised as creed. Till the passing of Independence Act, violence largely replaced the earlier creed. The British Government also adopted novel methods of repression—air raids, machine-gunning, looting and burning of villages, rape and rapine etc.

The movement no doubt failed and the Congress had to resort to last-ditch fight. It lost its vigor in a couple of months. The administration was not paralysed and brute force applied to crush the Movement. But the last fight i. e. the Quit India Movement was not without its significance. It

was a Soldier's fight, with the General behind the bars, who gave a good account of themselves and laid down their lives. The reasons for the failure are not far to seek. No definite programme of action it is said was formulated either by Gandhi or the prominent leaders before their arrest. No directions were issued but slogans 'do or die' within limits or Non-Violence. It was presumed by the Congress that the people had been sufficiently trained and did not need any more directions. The various district Committees and individual Congress-men issued instructions sometimes bordering on violence. The revolutionaries who were all along active took advantage of the vagueness of the situation, to guide the amorphous mass to destructive activities. Really speaking the 1942 Movement was an admixture of the Gandhian spirit of Non-violence with the revolutionary programme based on violence. The movement has been characterised as one of hopeless incompetence and utter mismanagement.



MARUGADDE : 1, 2, The Temple, general and front views.
3. Pitāmaha 4. Bhairava.

UNIQUE MEDIEVAL (NATHA ?) TEMPLE IN MARUGADDE, DIST. NORTH KANARA

A. Sundara

Marugadde is about 20 km. north-east of Ankola, a Taluka head-quarters in North Kanara Dist. In the revenue limits of this village, is a group of four temples near to one another, all in ruins located in thick and wild forest. Thick vegetation is grown over them. One of them, the biggest of all, is entirely of grey granite (?) stone, while the others, medium sized, are of laterite. Of the small temples, two are Śaiva and one is Jaina. Architectural and iconographic traits of the sculptures of the temples indicate them to be of c. 13th-14th c. A. D., the biggest temple being probably the earliest in the group.

The large temple :

Among the temples the biggest² is particularly noteworthy for its distinct uncommon features in architectural elevation and plan, sculptural disposition and types. The inner surface of the walls, the front part, the roof and part of the *śikhara* are dilapidated so much that the interior plan, arrangement of the pillars, surface treatment of the interiors of the walls, the front elevation and the form of the *śikhara* are scarcely intelligible. (plate 1, 2).

Architecture :

Exteriorly, the temple measures 5.60 X 5.0 m. and thus is almost squarish (plate I; 1). The plinth is relieved into seven plain horizontal mouldings, the third from the surface level being a frieze of rosettes. The walls are plain having five shallow rectangular niches at uneven intervals containing sculptures of some forms of Brahmā. Chāmuṇḍā, Bhairava, and men and women engaged in erotic activities, all in bold relief and more or less of the same size. At the roof level are three plain projected horizontal tiers separated by distinct and high recesses each upper one being smaller than the lower. The extant part of the *śikhara*, is the lowest *tala* with projected horizontal tier at the top. Whether the *śikhara* is of *Vimāna* or *Kadamba Nāgara* type is not clearly obvious.

At the front of the temple in the middle is an opening in the floor with a flight of steps leading to an underground hall interiorly measuring

4.20X4.05 m., a unique feature. In the hall are four central pillars, two canton pilasters at the back and eight wall pilasters. In the adjacent walls at the north-west corner is each a rather deep niche 45 cm. h. X 61 cm. In between the wall pilasters is a small platform in each wall. The central pillar consists of partly square and partly rectangular *kāṇḍa*, square *padma-bhanda* and *kalasa* with triangular motif on the sides, thus differing from the usual type of the temple pillars of 11th-12th c. A.D.³ The central bay of the ceiling is of star shaped device with a carving of lotus flower at the centre. The hall is exactly below the temple at the ground level and more or less coincides in measurement with the latter.

The sculptures :

The sculptures are five each on the exterior of the three walls. In circumambulatory order are from the front right : no. 1, *Brahmā*; no 3, *Gajāsurasamhāramūrti*, no. 8. *Naṭarāja*, no. 11, *Chāmunḍā*: nos. 2, 5, 6, 10 12 and 15, the various forms of *Bhairava*: nos. 4, 13 and 14, men and women engaged in sexual activities and nos. 7 and 9, nude women in different postures.

No. 1, *Brahma* (Plate 1;3):

Brahmā, bearded and with moustache, wearing *jaṭāmakuṭa*, holds *japamāla* in the lower right hand that is in the *varada mudrā*; *śṛuḥ* (ladle) and *pāśa* in the upper hands and *phala* in lower left hand. He stands in *tribhanga* and wears ornaments such as *chakra*-*kunḍalas*, necklaces, armlets, bangles, *mēkhalā*, anklets all of apparently rosary and a long *hāra* looking like a twisted rope. It is noteworthy that he is single-headed. To his left stands an elephant (?) with trunk broken, small in size.

No. 3. *Gajasurasamharamurti* (plate II;1):

The twelve-armed *Gajāsurasamhāramūrti* in *atibhanga*, holds *japamāla*, *bāṇa*, *triśūla*, *khaḍga*, *khaṭvāṅga*, *khēṭaka*, *dhanus* and *phala*. The other two hands have lifted up from behind *gaja*'s skin. The remaining two hands are in *nṛitya mudras*. It is noteworthy that he wears *kirīṭama-kuṭa*, unlike the other forms of the god.

No. 8. *Nataraja* (plate II;4):

Naṭarāja -twelve armed, holds *japamāla*, *bāṇa*, *khaḍga* *triśūla*, *sarpa* held horizontally up by the uppermost two hands,⁴ *Khēṭaka*. *Khaṭvāṅga*, *dhanus* (broken) and *phala*, the lowest left being in *vyākhyānamudra*. He wears *jaṭāmakuṭa*, *ruṇḍamāla* and usual jewelled ornaments. On his right and left sides are *Bhṛīṅgi* holding a *khaḍga*, and *Ganēśa* respectively.



MARUGADDE : 1. Gajāsūramardan 2. Bhairava and erotic couple
3. A nude woman and Bhairava 4. Natarāja

Nos. 2,5,6,10,12, and 15 : Various forms of Bhairava :

No. 2. Bhairava (plate I;4) wearing jaṭāmakuṭa, in stand-at-ease posture, holds dagger, gadā, pāśa and bhindipāla(?) i. e. a small javelin. He wears beaded ornaments including a long hāra. To his left is probably a dog but looking more like a bison.

In no. 10, Bhairava (plate III;1) wearing runḍamāla and holding akṣamāla, ankuśa, vīṇā(?), has a bison to his left and, strangely enough, a couple indulged in sexual orgy i. e. a man standing with legs apart and placing his right hand on waist, is sucking through a tube from a woman's private organ who is seated squatly above.

No. 5. Bhairava representing the Kāla-Bhairava form, (plate II;2) is nude in stand-at-ease pose; holds khaḍga, damaru, triśūla and a boat-shaped pānapatra containing fish and carrying a severed human head. He wears a nāga makuṭa and kuṇḍalas, runḍamāla besides a few jewelled ornaments. To his left is a dog seated.

Nos. 6, 10, 12 and 15 (plates II;3. III;1 and 2.; IV; 2.) are four-armed Bhairava of usual type with slightly varying attributes.

No. 11 Chamunda (Plate IV; 1)

No. 11 is the twelve handed Chāmuṇḍa or Kālī has emaciated body, twelve hands, holding dagger, bāṇa, damaru, khaḍga, triśūla, dhanus, vajra, khēṭaka, boat-shaped pānapātra and served human head one of her left hands being in *vismaya* mudra.

Erotic sculptures :

No. 4. In the panel depicting an erotic scene, a royal(?) person is standing presumably nude before a seated nude woman who is probably licking the male organ (Plate II, 2).

No. 7. The nude woman stands cross-legged whose thighs are tied with a serpent and hands, lifted up (Plate II; 3)

No. 9. The nude woman stands straight. Her hairs dishevelled. She keeps both the hands on the thighs as if to expose her private organ distinctly open (Plate III; 2).

No. 13. A couple is in the act of intercourse in which the man seems to wear jaṭā. Of the other couple, the man probably having jaṭāmakuṭa has abnormally long heavy organ that is lifted up by the woman by the hand. She is licking the organ (Plate III; 2).

No. 14. A man engaged in intercourse with a woman from behind who in turn seems to be holding the male organ of the other and being

cajoled by him. There is another man standing beside them. All the men wear *jaṭāmakuṭa* and ring-like *chakra kuṇḍalas* (Plate IV; 2).

Some observations:

In the forms and disposition of the sculptures, it is particularly noteworthy that there are exclusively the various forms of Bhairava in large number six out of fifteen besides two of Śiva and one of Kāḷi or Chāmundā.

Secondly, the size and disposition of the erotic sculptures are significant. They are more or less of the same size as those of Bhairava and placed in between the sculptures of the god being equally prominent placed in the middle zone of the wall. Of course erotic sculptures are found in a number of temples of mostly the medieval period in Karnataka, the most striking examples being the Kallēśvara temple in Bagali⁵, Śankha basadi in Lakṣmēśvara and in others elsewhere. But they are miniatures or small panels found in secondary places such as the plinth, the bottom or top zone of the walls, the *hāra*, and *prastara* levels of the roof, on the exteriors of the *kakṣasanas* or the *śākhās* of the doorframe. Normally they are not prominently displayed in the middle zone of the walls, in bold and large size intervening the big sculptures of gods, goddesses and humans. The temple described above in the mode of the display of the sculptures and their magnitude reminds similar temples in Khajuraho. In Karnataka or outside so far, a temple provided with an underground⁶ hall as large as the temple and adorned with exclusive forms of Bhairava and bold erotic scenes of equal magnitude, has not been reported elsewhere. The temple under study is therefore unique.

Religious affiliation:

Unfortunately the interiors of the temple from above the ground level are so much in ruins that its dedication to a particular god or goddess can not be known. However the temple seems to be of the 'Nātha' cult for the following reasons.

In this cult⁷ Śaivite in essence, Bhairava alone is the supreme god. In fact of the five Nāthas, Gorakṣanātha is believed to be an avatāra of Bhairava. Among the various strong influences to which this cult was exposed the Tantric form of worship had distinct role. The cult as such is probably developed out of the Vajrāyana from of Mahāyāna Buddhism.

In the Western Karnataka, particularly the Coastal and Ghat area⁸, the 'Nātha' cult did spread from about 10th c. A. D. onwards. Kadre a suburb of Mangalore is an important centre of 'Nātha' cult from about the latter part of 10th c. A. D. Bhuvanagiri (Shimoga Dist.), Saundatti (Belgaum

MARUGADDE:

1. Chāmunda

2. Bhairava and
persons in erotic
activities.

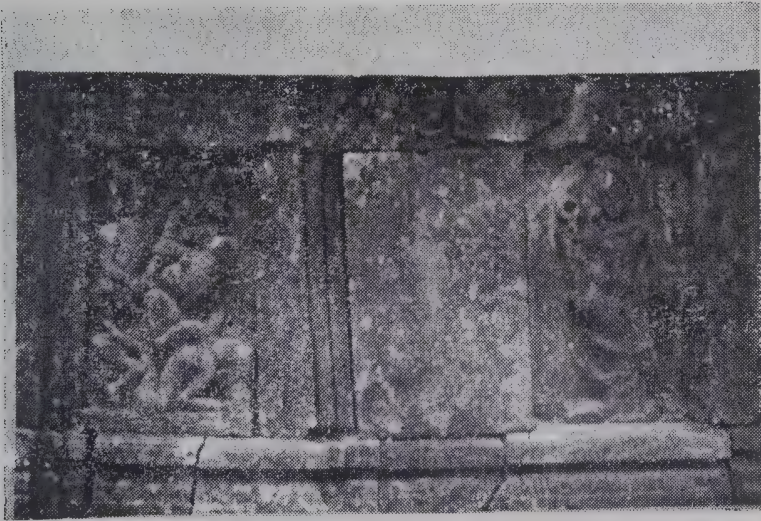


1. Chāmunda

2.



MARUGADDE: 1. Chāmunda 2. Bhairava and
persons in erotic activities



MARUGADDE : 1. Bhairava and a nude woman.
2. Erotic couples and Bhairava

Dist), Handi Badaganatha (Khanapur Tk., Belgaum Dist) are some of the other centres of this cult. An inscription from Chandavara⁹ (Honnavaara Tk, North Kanara Dist) sheds light on the spread of the cult in the coastal area. It records that Ādinātha was seated under a sacred tree (Śrī Vṛkṣa) here and the disciples were in turn Chāyādhinātha, Dvīpānātha, Manninātha in the form of Rudra who was invincible by other disputants and Vāmanayya. There are a few more inscriptions and places¹⁰ associated with this cult and sculptures of probably Gōrakanātha, Matsyēndranātha in the areas, suggesting strongly the prevalence of this cult.

In the temple under discussion, in view of the prominence given to Bhairava in the series of sculptures on the walls of this temple and of the tradition prevalent among the followers of the Bhairava cult, such as the Kāpālikas and the Nāthas, that even Brahmā, and Mahēśvara are but the manifestations of the supreme Bhairava it is appropriate here to identify the sculptures : Brahmā, Naṭarāja, Gajāsurasamhāramūrti, as the different forms of Bhairava.

In *Sritattvanidhi*,¹¹ the eight groups of Bhairava each consisting of eight forms, thus in all sixty-four forms, are described. The above sculptures are mostly in accordance with the descriptions given in this text. Accordingly while no. 1, Brahmā, and no. 3 Gajāsurasamhāramūrti, no. 8. Naṭarāja may be identified respectively as *Pitamaha*¹² form of Bhairava of 'Krōdha' group, *Hasticharmambaradhara*¹³ form of Bhairava of 'Kāpāla' group; as dancing Śankara form of 'Unmatta'¹⁴ Bhairava group; nos. 2 and 10, one of the forms of 'Unmatta'¹⁵ and Ruru¹⁶ Bhairava' groups.

Further in no. 5 i. e. Kāla-Bhairava the pānapātra contains fish. This is of two fold significance : Fish is one of the prescribed offerings by the devotees especially the 'Uttara Kaulas' to be made and used in the course of the religious rites to their god Bhairava and fish is one of the most common food articles of the people in the coastal region where the temple is located.

In the light of the above evidences, such as the presence of the sculptures of Bhairava and Chāmūṇḍā on the walls, the provision of the underground hall and the prominent display of the scenes of the exceedingly erotic activities, of the jaṭādhāri men wearing large sized ring like kuṇḍalas¹⁷ and women one of whom is depicted beside the figure of Bhairava in no 10. on the same slab and the presence of elephant(?) near Pitāmahā sculpture and fish in the pānapātra of Bhairava would undoubtedly indicate that the temple is intimately associated with the sexual orgies forming part of the tantric rituals of this cult in which the worship of Bhairava is prominent. The hall was obviously meant for performing secret sexual rites by the devotees of the cult.

It is therefore most probable that the temple is essentially of the 'Nātha' cult only one of its type so far noticed in Karnataka in particular and elsewhere in general.

NOTES AND REFERENCE

1. This paper was presented in the Section : Karnataka Language, literature and Culture of all India oriental Conference, held in Nov, 1976, held in the Karnatak University Dharwad.
2. This temple group was brought to my notice in 1973 by my students Sri R. V. Naik and others from Bole area near Ankola. They took me to the spot and helped me in my study.
3. A pillar of the temples of the Kalyana Chalukya period about invariably consists of from bottom to top moulded pitha, Kanda partly rectangular and partly circular padmabandha, Kalas'a tadi, Kumbha, idaje and phalaka. In the temple under study, the uppermost four parts are absent.
4. This feature reminds that of the unique Nataraja in sandhya tandava in the first Saiva layana at Badami.
5. A Rea's book , *Chalukyan architecture* contains an account of the temple with many illustrations (pp. 6-10 pates VI-VIII) but without reference to minor erotic sculptures. Sri E. N. Katkar presented a paper on the erotic sculptures some of them being most unusual, with illustrations in the Seminar on the *Chalukyas of Kalyana* held under the auspices of the Mythic Society, Bangalore on 10th-13th February, 1976, On the exterior of the right Kaksasana of the S'ankha basadi, is a series of erotic sculptures including amorous couples an unusual feat in the jaina basadis in North Karanataka. I have noted them.
6. Dr. P. Guru Raja Bhatt in the course of his survey of jaina Monuments in north Karnataka had found in Kagawada, Athani Tk., Belgaum Dt. a jaina basadi with an underground similar basadi with sculptures of Tirthanakaras and informed me about it. I am thankful to him. Further in 1970, I as pilgrim visited the Naganatha Temple in Aunda, Parbani Dt. Maharashtra. If my remembrance is correct the temple has also an underground garbhagriha with Sivalinga in worship. But the underground structure of the temple under discussion, is a hall that is evidently not a garbhagriha and thus is fundamentally different from the above temples.
7. *The Cultural Heritage of India*, Vol. IV, 1969 (Reprint) pp. 280-90.
8. Guru Raja Bhatt, p. 1975 : *Studies in Tuluva History and Culture* pp. 291-97.
9. *Epigraphia Carnatica* IX, Nelamangala, No.1.
10. Guru Raja Bhatt op. cit.
11. Gopinatha Rao, T. A. ; 1971: *Elements of Hindu Iconography*, Vol. II, pt. II, pp. 93-95.
12. Gopinatha Rao, T. A; 1971 (Reprint) : op. cit. Vol. II; pt. I; pp. 180-82.
- 13 & 14. Ibid.
- 15 & 16. Ibid.

17. The Nathas in the coastal region such as Kadre wear large-sized ring like ear-ornaments, that seems to be a distinct feature of their ornaments. But in general they are also known as "Khanpathas" i. e. those with ears split at the bottom as a part of their religious mark.

ACKNOWLEDGEMENT

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A SCULPTURAL PANEL OF YAŚODHARA STORY AT PATTADAKAL

Shrinivas Padigar

At Pattadakal, on the faces of the pillars in the *Sabhamandapa* of Virupāksha, Mallikārjuna and Kāśivīśveśvara temples are, as is well-known, narrative panels representing main events or episodes from the *Ramayana*, the *Mahabharata*, the *Bhagavata Purana* the *Panchatantra* etc. While many of these panels are identified, some still remain, as far as my knowledge goes, unidentified. In the course of my study of such panels I have been able to identify a few of them. One of them appears to represent an incident from the story of Yaśodhara. Herebelow, I have discussed this particular panel.

The Story in the Literature:

There are many works by Jaina poets on the theme centred round the story of Yaśodhara. The earliest so far known of them was probably in Prakrit, written by Prabhanjana about the 7th century A. D. and is now lost to us. *Samaraichcha kaha* of Haribhadra also in Prakrit, has the story of Yaśodhara for its theme. There are some points of difference between this work and the later *Yasodharacharita* of Vādirāja in Sanskrit (early 11th century A.D.), especially insofar as the names of characters appearing in the story and conclusion are concerned.¹

The main characters appearing in the story are four : Yaśodhara, king of Ujjaini, his beautiful queen Nayanāvati (called Amṛitamati in Vādirāja's work); his mother (named Yaśodharā in *Samaraichcha kaha*); and a cripple (Ashtāvakra), the king's elephant-keeper. The essence and appeal of the story is the infidelity of woman, but Jaina poets have done their best to give it a religious tone. The queen according to the story, falls in love with the cripple, arrested by his most melodious song. She accepts him as her paramour and their affair continues unabated till the day the king suspects her behaviours. The king follows her one night without her knowledge and there in the elephant stable he sees his queen apologising to the cripple who because of her belated arrival lashes on her back and kicks on her neck.

1 Krishnamoorthy K. (Ed.), Dharwad 1963, *Vadiraja's Yasodharacarita*, pp. 55ff. About a century after Vadiraja wrote this work, the renowned Kannada poet Janna, adapted it for his Kannada work of the same name, which is a virtual translation of the Sanskrit original.



Fig. 1. (i) Amritamati apologises the elephant-keeper.
(ii) Amritamati falls unconscious at the lash by sing.



Fig. 2. The unidentified panel upper part of fig. 1

The queen declares her unswerving love for the cripple and soon both fall in each others arms. The king, witnessing all this, at the moment even entertains a thought of killing them on the spot, but gives up the idea and returns to the palace with a heavy heart, losing all his interest in worldly pleasures. The next morning he plays a game with the queen and in jest strikes her with a flower. The queen falls down, as it were, unconscious. Then the king indirectly discloses how much he knew about her. The queen decides to do away with the king and his mother and ultimately does so.

This story is developed in the Jaina literary works to give it a religious appeal by the addition of another episode in which the king, before his death, to get rid of the bad effects of a bad dream he had seen, is instigated by his mother to sacrifice to goddess Kālī a fient cock which however cries out at the time of sacrifice because a demon had entered it. For this sin alone the king and his mother pass through a cycle of rebirths.

It has been pointed out,² on good grounds, that the story must have been originally of secular nature, possibly a folk-tale illustrating the infidelity of women, before it finally received the religious touch and finish at the hands of the Jaina poets.

The Sculptural Panels:

At any rate it is definite that the story was already known in Karnataka region about the middle of the 8th century, possibly still in its secular form. For we find sculptural representation of at least two scenes of the story in a temple at Pattadakal.

The sculpture (Fig. 1) is in bas-relief on the north face of the fifth pillar (counting from the east entrance) of the *sabhamandapa* of the Mallikārjuna temple. On this pillar there are two narrative panels one below the other and above is a half-medallion containing Śiva and Pārvaṭi. The lower panel is directly concerned with our subject and is in two parts separated by a pillar motif. The first half depicts an elephant tied to a pillar; next to it is a man who is ready to lash the woman kneeling in front of him. The posture of her hands shows that she is apologising to the man. This is obviously the scene of the elephant-keeper (suggested by the elephant by his side) lashing the queen for her belated arrival while the queen is apologising to him. In the other half, the central figures (suggested by their size) are a man and a woman. The man is seated, holding a long object in his right hand and the arm of the woman in his left; while the woman has collapsed to the ground

² *Ibid.*, pp. 64ff. In fact, the *Parisishtaparva* of Hemachandra refers to a story in which a queen falls in love with an elephant-keeper.

unconscious, as suggested by her posture, her hands being supported by an attendant on either side. That the man is the king is suggested by the female chauri-bearers flanking him. Something has astonished them; for their hands are in *vismaya* being placed on their chin. This part obviously represents Yaśodhara, the king, who has struck the queen, Nayanāvati, with a flower, while the queen has collapsed unconscious on account of it. This has surprised the chauri-bearers ! The narration is brief, but the expression of the theme, precise.

The upper panel (Fig. 2) however, poses difficulty as to its identification. The panel is continuous although without doubt narrative. First there is a house near which a lady and a man in awkward position are seated. Next the lady is seated in a house, touching a bird with her right hand. A man supporting her elbow on the left. At the other end, there is the lady as if giving away the bird. She is followed by another lady facing her. In between them is a *linga* and above it are two flying persons. Below the *linga* is the bird. Although one may be tempted to take this to represent the sacrifice of the fient cock in the story of Yaśodhara because the lady is shown holding the neck of the bird in the last scene, I am very much doubtful about such an identification. For, if it were so, one would expect the figure of *Durga* in the place of *linga*. Moreover, it should be noted that this sculpture is found not in a Jaina temple, but in a Śaiva temple; and the representation of a Jaina theme is to be least expected in a Śaiva temple. It is therefore, safe to remark that this panel may represent an altogether different theme, unconnected with the lower panel and the story of Yaśodhara. In that case, the lower panel will prove that at the time when the sculpture was carved (i.e., C. 750 A.D.) the story had still retained its secular appeal.

To sum up, this sculptured panel is the only so far known in the Chālukyan series (and perhaps in Karnataka art) to represent the story of Yaśodhara. It shows that the story was known to Karnataka region in about A. D. 750, possibly in its secular form. And it may well support the view³ that the story may have been originally a folk-tale of South Indian origin⁴.

3 *Ibid.* It is well known that the Mallikarjuna and Virupaksha temples at Pattadakal were very much influenced by Pallava art-traditions both in style and theme. It is therefore not unlikely that this story was known in Tamilnadu and South Karnataka region also about this period, if not much earlier.

4 This is the revised form of a paper presented by the author at the X Annual Congress of the Indian Archaeological Society and the V Annual Congress of the Indian Society for Prehistoric and Quaternary Studies, held at Karnatak University, Dharwad, 1978. The author heartily thanks Dr. A. Sundara for his valuable suggestions in the preparation of this article.

THE DATE OF THE LAD KHAN

S. Rajasekhara

"The oldest temple at Aihole is probably that of Lād Khān..... There is no temple at Aihole, nor elsewhere that I know of, which impresses one so much with its cave-like character"¹, wrote Cousens. The temple of Lād Khān is generally considered to be the oldest of the place, and one of the oldest structural temples in India by many writers. The majority of writers place it in the 5th century, basing their argument on its 'cave features.' Cousens further writes that its "general massiveness, the simplicity of its construction, and its plan and details, have much more in common with cave architecture than with that of the latest... The flat roof, and its want of elevation, are cave-like characteristics. But, more than with anything else, one is struck with the great massive pillars, with their roll bracket-capitals, which evince a simpler and more dignified style than many of those more-decorated ones in Cave III at Badami; and they, certainly have the appearance of greater age than the latter."² Benjamin Rowland writes, "Still another type of architecture is represented by the Lād Khān temple at the same site dating from c. 450. This is a rectangular building with a flat roof of stone slabs... the Lād Khān is important in furnishing with the earliest example of the massive bracket-like capital that continues in use through the Hindu Renaissance period."³ K. V. Soundara Rajan holds that the temple of Lād Khān cannot be "placed later than the last quarter of the sixth century A. D., and should have been close on heels of the earliest cave shrines at Badami."⁴ Percy Brown writes that mainly "on account of its primitive appearance the temple known as Lad Khan is considered to be the oldest building of the Aihole group, and has accordingly been assigned to the middle of the fifth century .. In shape it is a comparatively low, flat roofed building, its plan being a square fifty feet side and over all rises a small supplementary story of later date... Although the plain square shaft and bracket capital is a characteristic of its style, an elaboration of this occurs in the pilasters placed at each of the exterior angles of the building. The shafts of these taper slightly at their upper ends, above which is a "cushion" with an expanded floral abacus supporting the bracket. This is probably the first appearance of a particular form of capital of great importance, because it afterwards became almost universal in the architecture of southern India, representing as it does, the "order" of the Dravidian style... That the temple of Lad Khan was the near product of a primitive movement is shown by the nature of its masonry, which is composed of great

archaic looking blocks dressed to level beds and placed one upon the other without any cement or similar binding composition. The walls are of disproportionate strength, yet not uncouth, although denoting a wasteful use of material, significant of inexperienced workmanship.”⁵ He dates this temple to c. 450 A.D.⁶ Writing about the Lād Khān, P.K.Agrawala states, “The temple of Lad Khan (about 553 A.D.) is very much impressive for its cave-like character and primitive features. But its great importance lies in its little upper chamber which associates it with other early examples of having this curious feature, as at Nachana Kuthara, Bhitargaon, Bodhgaya and at Aihole itself in the temple of Meguti.”⁷ “A comparison of the ground-plans of the temples of Konti-gudi group and of the Lad Khan temple,” says R. S. Gupte, “however, would suggest a later date for the latter ... Lad Khan takes the Hindu priest-architect a step further forward in the evolution of the temple architecture. Though the temple is simple in design, it is certainly better conceived than those of the Konti-gudi group.”⁸ He places this in the 6th century.⁹ Charles Fabri writes : “Next to it is the Lad Khan of Aihole ... in which, about fifty years later, the architect attempts to improve on the design of his predecessors. The portico is much smaller and juts out on the east; the shrine is well enlarged, and a circumambulatory path is provided, so that the worshipper can go round the shrine, which is an inner *garbhagriha*; and as the circumambulatory passage is provided with a roof and a wall, the architect thought of providing some kind of lighting; he made perforated screen windows ... and in his desire to make the temple more imposing, over the actual sanctum he raised a small turret, a little cell that may be looked upon as the very first attempt to create a spire the future *sikhara*. A temple must be seen from some distance, he thought; a temple must be tall and reaching up into the skies; here, then, is an upper storey, however small it is at first.”¹⁰ He places it in about 450 A.D.¹¹

Most of the above writers agree that the Lad Khan is the oldest structure at Aihole. Their conclusions are based on the following factors : 1) its massive quality; 2) simplicity of construction; 3) flat roof; 4) want of elevation; 5) great massive pillars; 6) roller-bracket capitals; 7) “unsculptured or conventionalised but only engraved and embellished pillars”;¹² 8) pilasters placed at each of the exterior angles and; 9) the little upper chamber on top of the sanctum.

The Lād Khān is built of large blocks of stone. Many writers hold that this is the earliest attempt at building a structural shrine, and its massive quality and simplicity have been taken as a factor to determine its early date. But among the general characteristics of the early Cālukya temples the massive wall, made up of huge blocks of stone are included, and this factor alone cannot be taken to determine the date of a structure.

Similarly, flat roofs, are found in all early Cālukya temples at Aihole. Since the aisles are covered with an inclining roof, that the nave should have a flat roof (so that the latter would help to accommodate the ends of the sloping roof of the aisles), seems to have become an architectural necessity.

The elevation of the temples at Aihole is less conspicuous, a feature which is also noticed in the temples of the Saurāṣṭra. The Durga temple at Aihole, though a lofty structure, also suffers from want of enough elevation on the sides. This appears to be an outcome of the architectural pattern adopted for the super structure *i. e.*, a roof flat on the nave and sloping on the aisles. The height of the temple of Lād Khān has been, however, made up by a high plinth on which the walls are built.

The Lād Khān has four types of pillars. The hall reveals two types, while the porch reveals the other two. i) The four central pillars in the hall, forming one variety, stand at the four corners of the raised square band in the centre of the hall, are square in shape, save a narrow octagonal band on the upper part of the shaft. The pillars have a plain *patta* at the base, with a half medallion; another *patta*, which comes above this, is plain. A little above this is a *tripatta* surmounted by a half medallion in the centre and quarter medallion at the sides. The same design is found above in topsy turvey manner. The brackets are four armed. These are of *taranga* variety, with two huge roller mouldings with a median band set with floral designs.¹³ ii) The second type of pillars, altogether twelve, is on the outer platform (raised band) of the hall. These are shorter than the central pillars. At the base of the shaft of this pillar is a plain *patta* and a half medallion; in the middle of the shaft is a *tripatta* and a half medallion. The brackets are of the *taranga* variety, with two prominent roller mouldings. The median band is designed. iii) The third variety is located on the stone bench of the porch. These pillars are shorter and heavier than the inner pillars. These are square and squat. They bear a decorated *tripatta* and a designed half medallion on the three faces of the shaft while the outer face of the shaft bears a relief of either *mithunas* or river goddesses. The brackets are curved, bearing no median bands. iv) The fourth type is situated in the centre of the porch. These pillars, four in number, are also square with a *tripatta* in the middle of the shaft, surmounted by a carved half medallion. The curved brackets, however, do not bear the median band.

Commenting on the pillars of the temple, Cousens wrote that the "... pillars are the most characteristic feature of the temple, being remarkable for their great massiveness which are most suited to support the heavy rock in a rock cutting than the lighter roof of a structural temple. The shafts are single heavy square blocks, without bases, from the floor to the

bracket-capital, the last being a separate stone."¹⁴ In another place he writes, "rock cutters when they built this had not learnt much concerning the relative strength of materials, and so transferred their cave cutting proportions to this building."¹⁵

There is no doubt that the pillars of the Lād Khān are massive, but this is not an exclusive feature of this structure, for there are several other structures in this area that possess heavier pillars than those found in the Lād Khān. Let us compare the pillars of Lād Khān with the pillars of other important structures of the early Cālukyas :

Pillars of the Lad Khan :

- 1) The four central pillars in the hall 9' 7" X 2' 5"
- 2) The central pillars in the porch 6' 3" X 1' 11 1/2"
- 3) The other pillars of the hall 7' X 2' 2' 3"

Pillars of other Temples :

Gaḷaganātha (Aihole)	6' 7" X 1' 9"
Huccappayyaguḍi (,,)	5' 8" X 1' 11"
Sūrya (,,)	6' 3" X 1' 10"
Virūpākṣa (Paṭṭadakal)	8' 6" X 2' 10"
Mallikārjuna (,,)	7' 11" X 2' 5"

The temples of Virūpākṣa and Mallikārjuna at Paṭṭadakal were built after 733 A. D. and before 744 A. D., though were among the last temples of this period, possess the same massive quality which are noticed in the early structures.

Of the examples cited above, save the central four, the pillars of the Lād Khān hardly compare in massiveness with those of Virūpākṣa and Mallikārjuna. While the Lād Khān pillars are about 32.2 and 36.27 cft., those of Virūpākṣa and Mallikārjuna are 60.43 and 46.22 cft., respectively. The pillars of the early Cālukya period are generally massive, for they were meant to bear the heavy weight of the superstructure and not to imitate the cave model. There is no doubt that some amount of influence of the cave temples cannot be ruled out on the structural temples of the early Cālukyas. Of all the structural temples, it is on the Jambulinga (699 A.D.) at Bādāmi the influence of the caves is conspicuous. The facade of the pillared hall is cave-like. If there had not been an inscription clearly revealing its date, one would have placed it along with those of the caves at Bādāmi.

The Lād Khān has two types of brackets: 1) brackets containing two roll mouldings and a median band; 2) simple brackets with a curved profile. The first can be noticed in the hall and the second in the porch.

The roller brackets are often considered to indicate cave features, for they are generally found in the cave temples of the Deccan. However, these are not peculiar to the Lād Khān alone, for they are also found in the Jambulinga at Bādāmi, the Mallikārjuna at Mahākūṭa, the Nāganātha, at Nāganātha, the Durga temple at Aihole etc. The simple curved brackets are also commonly employed during this period.

Soundara Rajan feels that, "together with the massive character of the pillars, their relative unsculptured or conventionalised but only engraved and embellished character, would show that the temple construction was still in the throes of evolution, and stability, utility, and imitation of erstwhile rock-cut tradition were all too evident."¹⁶ We felt that the plain surface of the pillars cannot prove that the temple construction was in the throes of evolution. The pillars in the porch of the Lād Khān are not completely devoid of embellishment. The *tripattas* are set with beads, *kirtimukhas*, floral mouldings, mythical animals etc. The half medallions bear reliefs of a person in the *alidhasana* holding snakes, *mithunas*, an elephant trampling and goading a man with its tusks, *yaksa* etc. The outer face of the pillars on the stone bench bear large reliefs. These include *mithunas*, Gangā and Yamunā. A few pillars inside the hall are also relieved with designs. It is unwarranting to say that the pillars are relatively unsculptured. Moreover, in the early Chālukya temples, only the medallions and the *tripattas* are decorated and only occasionally full size reliefs are found on the pillars. The pillars in the temples of Huccappayagudi, Durga etc., exemplify this. Very often pillars are simple without any carvings on the *pattas* as in the Tārappa, Gaḷaganātha, and many other temples of Aihole.

The pilasters on the four angles of the exterior of the outer wall are again a feature found in the Jambulinga at Bādāmi. These pilasters at Lād Khān served as a model for the later exterior angular designs according to Percy Brown. He says that these appeared for the first time in the Lād Khān; infact, they appear in the temple of Jambulinga at Bādāmi, built in 699 A.D.

The above factors help us doubt the character and the date attributed to the Lād Khān. The dates assigned to it are as follows : *Cousens* : before Cave III at Bādāmi which was excavated in 578 A.D.;¹⁷ *Benjamin Rowland* and *Percy Brown* : c. 450 A.D.¹⁸ *P. K. Agrawala* : 553 A.D.;¹⁹ *R. S. Gupte* : 6th century A.D.;²⁰ *K.V. Soundara Rajan* : not later than the quarter of the 6th century A.D.²¹

The above dates range from the middle of the 5th century to the last quarter of the 6th century. We feel that these dates are too early for this structure. The Lād Khān is a well developed temple sharing quite a number of features of other well known structures of the early Chālukya period

including the Jambulinga at Bādāmi. The pillars of the Jambulinga and the Lād Khān closely agree in design and execution. The pilasters of the porch of Jambulinga have a *patta* and a half medallion at the bottom, again a small *patta* a little above the medallions on the upper part of the shaft. These half medallions and corner medallions are repeated in a topsy-turvy fashion which results in a small octagonal band. These are similar to the central pillars of the hall in the Lād Khān. The bracket, with two rollers and a median band, is also identificial in both the temples.

The pillars of the ball of the Jambulinga are again similar in design to those of the porch of the Lād Khān. These have a *patta* and a half medallion in the lower part, and a *tripatta* with a medallion at the top. The brackets are also identical. The temple of Nāganātha at Nāganātha, of the late 7th or early 8th century, also has pillars of the type found in the centre of the hall of the Lād Khān.

The corner pilasters of the Lād Khān on the exterior walls are square without any base, and they possess a *patta* in the upper half of the shaft with a medallion above it, then a vase and a series of *tadis*, a square but round edged cushion and a square expanding abacus above which comes the curved bracket. Same kind of pilasters are found on the outer walls and on either side of the grilles of the Jambulinga.

Another striking feature is the existence of pilasters on either side of the door of the hall of the Lād Khān. The huge pilasters are again similar in design to the pilasters flanking the door of the pillared hall of the Jambulinga.

There is a remarkable resemblance between the entablature of the Lād Khān and the Jambulinga. In both, the entablature of the hall bears *Kudus* with floral designs in the centre and animal motifs like peacock, lion, elephant, bulls in a fight etc.

Because of the striking similarities between the Lād Khān and the Jambulinga they may be regarded roughly contemporary or near contemporaries, and, on this ground the former may be assigned to the last quarter of the 7th century or the early years of the 8th century. The structure bears refined sculptures and motifs and there is nothing primitive in their quality. The pillars are as richly embellished with large reliefs as in the temple of Nāganātha, if not of Durga at Aihole. It is worth noting, in this context, that none of the inscriptions found on this structure goes back to earlier than the 8th century.

The Upper Chamber of the Lad Khan :

On account of its upper structure, P. K. Agrawala has taken the Lād Khān nearer to the time of Nāchna Kuthāra, Bhitargoan etc.²² Charles

Fabri also holds a similar view. He holds this little structure as the future *sikhara*²³.

Charles Fabri's account of the Lād Khān is unsound. He writes of a circumambulatory passage and the huge windows which provided light to it. In fact there no circumambulation passage and the windows admit light, but into the pillared hall. He further writes that over the actual sanctum of the Lād Khān an upper structure was raised²⁴. P. K. Agrawal writes that the upper structure was raised to mark the position of the sanctum of the temple²⁵. But in actuality the upper structure is not raised above the sanctum. It is raised above the central ceiling of the hall.

We feel that this upper structure was a subsequent addition, and not an integral part of the original plan. It consists of a *garbhagriha* measuring 8' 6" X 8' 1", with an open porch adjoining it. The three walls on the exterior possess sculptures, of which two are unfinished. These are the sculptures of Viṣṇu, Sūrya and Ardhanārīśvara. The finished sculpture of Viṣṇu bears features which differ from those of the sculptures in the porch below. The eave of the upper chamber is plain; the row of geese found below, are missing here. The *garbhagriha* inner walls have pilasters at corners. The corner pilasters within the sanctum seem to have appeared rather late in the early Cālukya style. On these grounds, we presume that the upper structure was an afterthought and was probably erected a few decades after the main temple was built. We tentatively place it in the middle of the 8th century.

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PATTERNS AND PROBLEMS OF POLITICAL LEADERSHIP IN KARNATAKA

R. T. Jangam

In this paper an attempt is made to analyse the situation of political leadership in Karnataka. The period to which the discussion relates is from 1900 to 1977. The leadership situation in the various component parts of Karnataka, the princely state of Mysore, Bombay Karnataka, Hyderabad Karnataka and Madras Karnataka etc., is traced in brief. It is contended here that the linguistic reorganisation that took place in 1956 also brought about a communal reorganisation of the country as a whole and this part of the country in particular. Finally the leadership pattern constituted by the majority communities and the minority communities both in the pre-1956 and post-1956 periods is briefly touched upon.

The discussion of political leadership of Karnataka can be conveniently divided into two periods. One period can be said to be from 1900 to 1947 or even 1956 and the other period can be said to be the post-1956 period. The post-1956 period is the period in which the Karnataka state with more or less the present boundaries came into existence. Therefore when we speak of the patterns and problems of political leadership in Karnataka, we have to refer to this post-1956 period. But at the same time we cannot ignore the pre-1947 period. During this period Karnataka in the modern sense of the term did not exist. What existed were rather the several regions in the various presidencies or states of India which now compose the state of Karnataka. For example in the pre-1950 period the regions of Karnataka were found in the presidency of Madras, in the presidency of Bombay, and in the princely states of Mysore and Hyderabad etc. It is only after 1956 that the present political map of Karnataka emerged.

When we speak of political leadership of Karnataka, we are considering the political leadership over the entire period from 1900 A. D. to 1977 although this period, as we have stated, can be conveniently divided into the pre-1956 period and the post-1956 period.

The first observation that can be made about the political leadership in the various parts which now compose Karnataka in the pre-1956 period is that the elites or the various kinds of Brahmins or upper caste Hindus have played a vital role in the various regions. We may say that this is an all India phenomenon. That is to say, in the various parts of India the

Brahmin intellectuals or the Brahmin elites of the various types were the first ones to receive western education and training and be aware of the necessity and goal of political independence for India etc., and started the work of agitating and organising the masses for political independence and for the various socio-economic and political reforms. In Karnataka or its various regions distributed in the various presidencies or princely states, the Brahmins of various types were in the leading positions as regards the socio-economic, educational and political life of these regions. For example in the princely state of Mysore the Iyers and Iyengars occupied leading positions and while the prince was a Kshatriya, two of the distinguished chief ministers or administrators of this state came from the Brahmin community. To be sure there were other groups which may be described as caste Hindu groups which were next in dominance, after the Brahmins. These caste groups can be described as the Lingayats on the one hand and Vokkaligas on the other. From a strictly theoretical point of view the Lingayats and Vokkaligas may not be classified as coming under the label of Hinduism. But for all practical purposes, the term of caste Hindus has been extended to cover these groups in the princely state of Mysore. Hence we may say that these two caste groups in particular which can be characterised as upper caste Hindus played a vital role in the socio-economic, educational and political life of the princely state of Mysore. We should emphasise here the historical fact that the caste Hindus have come into the picture following the Brahmins. They have not replaced the Brahmins necessarily. They have rather supplemented or augmented the strength of the Brahmins in positions of leadership in the various walks of life. It may be observed here that the lower classes or categories of people, that is, people standing in the traditional scheme of four-fold classification, below the categories of Vaishyas, have not yet occupied any substantial positions or sufficiently numerous positions of power and influence.

As regards the region lying in the Bombay presidency or Bombay state, we may say that this was of the four districts of Belgaum, Dharwar, North Kanara and Bijapur. These four districts had uneven development among themselves but together they presented more or less a common pattern of political leadership. Here too the Brahmin leadership or the caste Hindu leadership came into prominence with the passage of years. As different from the pattern of the princely state of Mysore, the pattern here consisted of the Brahmin intellectuals who belonged to the categories of Chitpavan Brahmins, Goud Saraswat Brahmins or Deshasth Brahmins. These main categories of Brahmins supplied the leadership to this area in the initial years when the various socio-political movements and parties came to be started in this northern part of Karnataka. Again, as in the princely state of Mysore, here the caste Hindus supplemented the leadership or the elite position of Brah-

mins. But the difference here was that whereas in the princely state of Mysore Vokkaligas shared the dominant position with the Lingayats, in the northern Karnataka the Lingayats were numerous and formed a sufficiently sizable group. So in course of time, in the matters of socio-economic, educational and political development over the decades, the Lingayat leadership has in most cases supplemented if not supplanted the Brahmin leadership. Of course as in the princely state of Mysore, in north Karnataka too the classes or categories of people lower down the Vaishya class, have not yet occupied any sufficiently numerous positions of power or influence.

As regards what is called the Hyderabad Karnataka consisting of the three districts of Gulbarga, Bidar and Raichur, we may say that here, as in the other parts, the Brahmin intellectuals have played a leading role in the early period and the Lingayats have supplemented this leadership with the passage of years. But here we have to add a significant factor which figured prominently in the political situation of this area in the pre-1950 period. This was the factor of the dominance of Muslim elites in the fields of politics and administration mainly. Since the prince at Hyderabad was a Muslim, the rule and the administration in the three districts was also dominated by the Muslim officials and administrators. So in the field of politics and administration substantially the Muslims, though a minority, have played a key role in this region. But it must be noted that the majority here was the Hindus, in the form of Lingayats and the others. This majority constituted the backbone of the state in the matters of the socio-economic life. Agriculture, commerce, industry, trade and several professions and occupations were in the hands of these people and therefore they were quietly in positions of command and influence although for political or administrative reasons they might not have been vocal or vociferous. It should be noted here that when the resistance to the Nizam's rule came to be built up step by step in the various parts of the state of Hyderabad, as in the other parts of the Hyderabad state now lying in the states of Maharashtra and Andhra Pradesh, the parts in Karnataka too supplied the resistance as coming mainly from the non-Muslim sections or the Hindu sections of the people. We should remember that Qasim Razvi who spearheaded the Razakar movement which was a pro-Nizam movement was a Muslim and his following was also generally Muslim. The anti-Nizam forces were mainly supplied by the non-Muslim sections. And this was true of that part of the Hyderabad state too which now lies in the state of Karnataka.

Now the fourth part of Karnataka may be said to be the district of South Kanara or Mangalore. Here the pattern of Brahmin leadership

supplemented by the leadership of the caste Hindus has been repeated; although the scene of action has been in the presidency of Madras.

The district of Coorg which is a district now in Karnataka was a princely state and therefore this has to be put on par with the several other princely states such as Jamakhandi, Ramadurg, Savanur in the northern part of Karnataka. Generally it may be said that these princely states were integrated with the contiguous districts which were under the direct administration of the British. Coorg is a kind of exception in the sense that the whole state has been retained or redesignated as district instead of merging it as a part of some other neighbouring district.

The second observation we can make here is that the creation of the state of Karnataka following linguistic reorganisation in the country has also meant a kind of communal reorganisation. We may say that this has been true in case of several other regions or states in India. For example the Marathi state has also meant the Maratha state in the state of Maharashtra, the Punjabi state has also meant the Sikh state in the Punjab, Andhra Pradesh has also meant the state of Reddis and Kammas. Kerala has also meant the state of Nairs and Ezvas. Similarly we may say that in a rough fashion the state of Karnataka has become a state of Lingayats and Vokkaligas. Now we have to emphasise here that this is a very rough and broad statement and it does not mean that other communities or other language groups than the particular ones do not exist or do not flourish in the particular states or the Karnataka state. While the Lingayats and Vokkaligas occupy numerically impressive positions, other communities do exist and indeed flourish. For example the community of the Brahmins of various types does flourish in the state of Karnataka. The community of Muslims also flourishes in the state of Karnataka. Similarly the community of the lower classes or categories of people such as scheduled castes and scheduled tribes also exists in the state of Karnataka although by no means can we say that this community flourishes like the first two communities of Brahmins and Muslims. Likewise in the matters of language, although the state is explicitly reorganised on the basis of Kannada language, the several non-Kannada languages in the country with various sizes of population do exist and in some cases do flourish. For example in the southern part of Karnataka state Tamil, Telugu and Malayalam are vital language forces in several contexts and in the northern part of the state Marathi is regarded as a vital language. But having added all these qualifications, we must stress the proposition that the Lingayats and Vokkaligas constitute sizable and dominant majorities in the state. In this context we may have to modify to some extent the thesis of Dr. M. N. Srinivas relating to the dominant castes ruling in the different parts of India. In some cases states

are ruled by single dominant castes, the other castes playing clearly a subordinate role. This is so in the case of Maharashtra and the Punjab where the Marathas and Sikhs are undisputably in command. In Karnataka state, as in Andhra Pradesh, the majority is two-fold, or there are two majorities which together can be dominant.

The third observation that we can advance here is that the dominant majorities of the Lingayats and Vokkaligas have occupied leading positions, together with the Brahmins, in the politics and the government of the state, of course in the post-independence years. For in the pre-independence years there was no question of their occupying such positions, except in the princely states like the state of Mysore. Particularly during the period between 1950 and 1970 the two communities can be said to have supplied the bulk of leadership including the chief ministers and other key ministers of the state cabinet. In the post-1970 period however the leadership has apparently come from the non-majority communities, that is, the Muslims, the scheduled castes, the scheduled tribes, the Christians and so on. We may say that in the 1950-1970 period the majority communities have played their role in the various walks of life of the state, not only in the politics and government but also in the administration, services, social, cultural and educational life of the state. In elections to the parliament, to the state assemblies, to the taluka boards, to the corporations, to the municipalities and such other local or autonomous bodies, the strength and influence of these communities have been kept in view in assigning election seats or constituencies, campaigning, distribution or allotment of portfolios and vital administrative and high salary appointments etc. In the post-1970 period we may say that the so called minority community government continued to do the same but here the emphasis has been clearly on ameliorating the conditions of the lower classes, the backward classes or the weaker sections of the population in the state. So in the process at times the members of the majority communities have taken a second place or have been relegated to the background. We may further explain this phenomenon by saying that the minority government has been headed by the chief minister, Devaraj Urs, in the post-1970 period and that the Urs government has reflected the preferences and slants towards benefiting the minorities or weaker sections of the society (the preferences or slants which were upheld or repeated as valuable by the central government under the leadership of Mrs. Indira Gandhi). The preferences and slants have been clearly visible in the deliberate or specific programmes or projects initiated or implemented in course of the 20 point programme and the background of emergency declared in 1975.

In the post-1975 period the Urs government of the Congress party, the so called minority government, has faced a number of challenges and

crises. With the coming of the Janata party in power at the central level, the difficulties of the Urs government have increased considerably. There is always a temptation among the weak and vacillating MLAs and MLCs to be victims of defection and weaken the ranks of the Congress party. The governor can serve as an instrument of the Janata party to cause enquiries and probes against the Congress government in the state. If there is some disturbance or chaos in the state or political instability it is always possible for the President to advise the governor to introduce his (President's) rule in the state. On the eve of the assembly elections there was a fear that the minority government of Urs may resign or collapse owing to the defections or resignations of ministers. But events since then have proved that the Urs government was quite strong and was in a position to continue in power. The verdict of the assembly elections has been impressively in favour of the Urs government and this impressive mandate has been frequently confirmed by expressions of popular will such as elections to the taluka development boards throughout the state. This has given the lie to the hopes of the Janata party ranks to expect the downfall of the Urs government and the possibility of the President's rule in the state and the formation of the government at the state level under the auspices of the Janata party. This also means the postponement if not disappearance of the hope entertained by the majority communities, the Lingayats and Vokkaligas, to stage a comeback in the state politics. The Congress government headed by Devaraj Urs is expected to continue in power for its full term although the instability within the Congress ranks is feared to complicate this prospect. There has been an attempt to call into question the validity of the chief minister's election and at the time of writing the case is in progress before the Supreme Court in New Delhi. It is expected that Urs will have no difficulty in weathering this odd. Against this background the minority government forged by Devaraj Urs and formed by the Congress party is expected to continue its leadership in the politics of the state.

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POLITICAL ECONOMIC MODELS AND THE INDIAN CASE: SOME PRILIMINARY CONSIDERATIONS

K. Raghavendra Rao

The systematic and theoretical connection between economics and politics which once dominated classical economics in the West was dissolved historically under the pressure of intellectual and theoretical demands of the nineteenth century liberal, market society. The dominant ideological compulsions of the fast developing capitalist society in the West worked against the recognition of this connection. As a result, the earlier term, political economy, used by the classical economists and by Marx, was abandoned by the neo-classical economics of the full-fledged capitalistic social and economic order. The mystification of the situation was deliberate because the fatalistic faith in the market economy as an automatic system independent of the political system was necessary for its sustenance. Thus was born the neo-classical bourgeois positivistic economic science, claiming universal bindingness for the laws which were merely historically generated by one particular type of historical socio-economic formation, the capitalistic system.¹ But in recent times the economic crises in the most advanced capitalistic societies, especially that of the USA, have exposed and uncovered the essential interconnection between economics and politics. A new Marxist revival, under the guise of neo-Marxism, has affected the traditional academic study of economics. The term, political economy, is back into serious academic currency. In fact, the trend has become, under the pressure of capitalistic culture, commercialised and saleable.² It has now become yet another commodity with an immediately saleable potential. All sorts of works claim to be political economic studies. It is in this context that a tentative and exploratory exercise will be undertaken here to arrive at certain logically possible abstract political-economic models. Later they will be discussed in relation to Indian political development.

We shall start off with the unargued proposition, unargued because it needs no further demonstration, that all economic institutions, activities and behavioural structures in any given societal system cannot escape the constraints of the political environment with which they are in constant interaction.³ For the purpose of this paper, political environment may be defined as an assemblage of components of which the following seem crucial: formal political structures of the political system (the traditional state system) and the political processes they are involved in, which affect the

governmental system and the constitutional system, and the instrumental bureaucratic system (more familiarly known as public administration). We can define a political economic model as an economic system circumscribed by political parametres. A parametre is to be understood here as a factor or a force that constitutes a constraint on the system or situation of which it has been designated a parametre. We shall also assume a somewhat arbitrary but analytically advantageous distinction between political and economic modalities of action. The concept of political modality has already been implied in the explication of the political environment. Economic modality will refer to all activities whose explicit, immediate and conscious aim is to acquire, preserve, augment or destroy material resources. However, this distinction should be taken as purely conceptual with no empirical entailment. But in a given historical empirical situation, the economic and political modalities are inextricably intertwined. Indeed, this is a major reason why the classical insight of political economy happens to be valid. One aim in separating the two is purely analytical, and should be sharply distinguished from their separation structurally built into the positivistic, scientific methodology of pure economics. The latter is an ideological stance which obfuscates the basic epistemological necessity of conceiving an ultimate interconnection between the two modalities. In other words, the integral reality is a totality of the two—a fundamentally integrated political-economic reality.

Historically, no economic system has functioned in a pure political vacuum, least of all the free market economy allegedly enjoying the bliss of a self-sufficient, self-regulatory and autonomous system of competition. Not much reflection is needed to realise that the so-called free market can exist and function because it has been politically legitimised, protected and enforced. Even in the pre-modern economics of stateless tribal system, the economy is encapsulated by a pervasive community political power, not necessarily expressed through a formal political system.⁴

Our models⁵ will rest on the following theoretical assumptions : (1) that the political environment comprising formal and informal structures and processes acts as a constraint on the economic environment, and (2) that the economic environment comprises the mode of production including the social relations of production, technology and the distributive allocative market mechanisms (to be distinguished from the political process of such allocation). What is important is not merely to assert that the two sets of environmental variables are always found in interaction but to identify the logical and historical patterns of this interaction with a view to developing certain ideal-typical structures or models in the Weberian-

Parsonian tradition.⁶ At the same time, it is necessary to remember that the models proposed are not models-in-use but rather potentially useable models, whether for the purpose of understanding or changing a given case of political economic reality.

We shall abstract here three distinctive models of political economy, but the ultimate objective of this effort is to relate them to the so-called mixed economy, supposed to be a model-in-use in India today once the models are delineated, the political parametres, whether in the negative form of constraints or in the positive form of political resources, emerge automatically. In principle, it is possible to quantify these models, and, by implication, the associated political parametres. But that is a task which cannot be undertaken here. We shall, then, identify the following three models of political-economic interaction: (1) Model A or the political model, (2) Model B or the economic model, and (3) Model C or the political-economic equilibrium model. We shall explain below the properties of the different models, but it is clear that the differences between the models hinge on the relative dominance of the economic and political environments.

In Model A,⁷ the political environment dominates political economy. The political system does this by controlling the economic mechanisms and processes. As a consequence, the economic system becomes politicised. The effectiveness of the economy, whether assessed in terms of a purely quantitative production calculus or in terms of a more complex, moral and qualitative calculus of distributive justice, depends, in the last analysis, on the strength of the political will of the society and the capabilities of the political system to implement this will. The difficulty with this model is that when the political environment characterised is by a lack of such a will or a lack of capabilities or both, the economic costs of politics may turn out to be prohibitive in relation to the overall resources of the society and, paradoxically, eventually in relation to the stability of the political system itself. The political process proves to be dys-functional to economic development as well as to the goals of social justice. By the same token, if it gets going, it may produce spectacular economic and political outputs.

Model B is more familiarly known under the somewhat inaccurate name of free enterprise. As a matter of fact, there is no free enterprise under this model if that implies perfect competition under a significant absence of state intervention. The so-called free enterprise to the extent to which it may empirically exist is a political gift—a phenomenon politically generated by a tactically self-denying and mystified political will. Anyone aware of the paradoxical dominance of American business over American government, can easily see

the point. This is a more complex model than model A in that, as a matter of fact, the economic resource converts itself first into a political parametre/resource/constraint, and then dominates the non-economic political sector. Perhaps even this is a misleading formulation because what taken place is not so much a straightforward dominance as a collusion at the top level between the owners of both economic and political resources on the basis of common interest and concern. In many ways, this is a difficult model, excessively complicated in formal structure and difficult to operate. Its historical costs are difficult to estimate. It is, of course, very easy to be mesmerised by its phenomenal material success and visible (though misleading) affluence, which are merely tangible fruits going back to long roots hidden in a dark and hideous past. It is an almost impossible model to establish when time and capital are scarce and it is the most difficult to operate in situations, lacking the benefits of a long gestation of three centuries plus huge imperialist payoffs, historically associated with the growth of Western capitalism. It is beset with two dangers. The first is that in developing countries it just cannot be installed at all. Secondly, even if installed against overwhelming odds, it cannot, like imported technology, operate to schedule.

Model C is the least structured, the most open and flexible of the three models. Its situational matrix is one of high fluidity in which economics and politics are interlocked in a perpetual struggle for supremacy, a struggle relieved only by occasional periods of equilibrium, predicated on different degrees of imbalance and inequality between the political and the economic environments. In theory, it is a mixture and a balance, but, in practice, it is a precarious balance leaning now this and now that way. Once the political environment gains an upper hand, this model becomes model A in all but name and outward form. If, however, the economic environment gains an upper hand, it swings no less certainly towards model B. Therefore, a formal model C may exist but it may work to produce consequences identifiable with either model A or model B. More often than not, this model arises more as a pragmatic response to situational historical pressures than as a result of deliberate political choice. A political choice, in fact, may merely arise as a political legitimization of an economic *fait accompli*. Its greatest danger is that it tends to promote *ad hocism*, precisely the opposite of what is needed for the process of development. The situation may be described in some such desperate terms as unplanned planning. The twin processes of economics and politics tend to tear apart with suicidal compulsion, resulting in a structural block to both political and economic development. The only stabilising factor can be either the exploitative efficiency of the local ruling class or the

focussed needs of an external political system such as an imperial power or a multinational corporation or more frequently a collusion of the two.

In terms of the empirical reality, we may cite the USSR as a good example of model A while the USA is a good example of model B.⁸ The mixed economy of India is a clear case of model C. If our characterization of the Indian political economy as an approximation to model C is accepted, then we are in possession of a theoretical framework to analyse and interpret Indian political development as a process. For instance, it is possible to argue that the process of planned development in India runs into political constraints. The Indian political economy can be conceptualised as being circumscribed by a number of political parametres. This situation itself arises because the political system is reluctant to dominate the economy or more accurately the economic system blocks political efforts to do this. It may also be the case that there is no genuine political effort to constrain the economy. But even when the political system seems to be exercising some dominance through such policy outputs as legislation, such dominance and control tend to be a little too short of the needed magnitude and tend to come a little too late. The political parametres implicit in model C are such that they tend to become constraints rather than resources. In theory, they could be turned into resources but, in practice, this demands a political will and capability well beyond most political societies, let alone developing ones. The recent imposition of emergency regime in India could be interpreted as a case of turning the existing model C into model A by a mobilization system. But such an interpretation would involve the highly questionable assumption that there was an ideological programme for mobilizing the system. In other words, whatever Indira Gandhi's claim, the facts now increasingly being disclosed⁹ seem to point to a case of a pseudo-mobilization conversion of model C into model A. To become meaningful, model A requires that the political system can generate an enormous political will with substantial roots in the political society. Such a will can arise only in an ideological context. Indira Gandhi retrospectively appears to have operated on the basis of a personal compulsion, not on the basis of a genuinely political ideology and programme. This, however, is not to suggest that her actions did not produce objectively their own ideological consequences. Paradoxically, she strengthened model B, while operating model C formally but as a disguised version of model A. In short, Indian political development presents a case of what may be called model confusion.

It is perfectly possible that India should get away from all these three models and evolve its own model. The Janata party's efforts to do this in Gandhian terms has resulted only in further model confusion. In a curiously ironical way, the Janata party is strengthening also model B, while claiming

to set up a Gandhian model.¹⁰ In short, India's path of political development lacks direction in a subjective sense, but, in an objective sense, the overwhelming evidence from facts is that this direction is towards model B, but an inefficient case of that model.

NOTES

1. Any standard history of economic thought would describe this process as the happy emergence of economic study as a scientific discipline. This position has been challenged by Marxists and also non-Marxists like Galbraith and Myrdal. See J. K. Galbraith, *Economic Development*, Harvard University Press, Cambridge Mass., 1964, and Gunnar Myrdal, *Political Element in the Development of Economic Theory*, Routledge, London, 1955.
2. Some sample titles are: *The Political Economy of Student Protest*, *The Political Economy of Slavery* and *The Political Economy of Foreign Aid*.
3. While this interaction is loosely recognised, it is systematically ignored by non-Marxists in the pursuit of economics as a pure science. Of course, there are exceptions to this.
4. For the notion of Stateless politics in tribal systems, see M. Fortes and Evans-Pritchard, eds., *African Political Systems*, Oxford University Press, London, 1958.
5. The term, models, is used here not in a rigorous mathematical sense or in the sense of a scale model. We use it in the sense of an abstracted model which concentrates on the essential properties and features of the real phenomenon of which it is a model. See in this connection C. B. Macpherson's *The Political Theory of Possessive Individualism*, Oxford University Press, London, 1962, in which such models are constructed to explain the political theories of Hobbes and Locke. Of course, the most monumental effort in this direction remains Marx's construction of the model of a functioning capitalist society.
6. For the Weberian notion of the ideal-typical, see Max Weber, *Methodology of the Social Sciences*, Tr., and ed., E. Shils and H. A. Finch, Free Press, Glencoe, 1949.
7. While the traditional labels for this system have been dictatorship and totalitarianism, a more sophisticated term is the mobilization system, advanced, for instance, in David Apter, *Politics of Modernization*, University of Chicago Press, Chicago, 1967.
8. This is how Sweezy and Baran conceptualise the American system in their *Monopoly Capital*, Pelican Books, London, 1968.
9. This has been uncovered, though not altogether satisfactorily, by the reports of the Shah Commission, set up by the Janata government to go into the misdeeds of the Emergency period. See also David Selbourne, *An eye to India*, Pelican Books, London, 1977, for a leftist assessment.
10. It is not surprising that JP, an exponent of the Gandhian model, and also a founding father of the Janata party, has not been unequivocally happy about the record of the Janata party as a ruling party.

A COPPER COIN OF THE HOYSALAS

—A Note

C. V. Rangaswami

and

B. S. Patil

“The history of the Hoysaḷas as a feudatory family stretches over a fairly long period and it was only in the period of Bittiḡa or Viṣṇuvardhana (c. A. D. 1106–1142) whose achievements are recorded in a number of epigraphic records that they really established themselves as an independent power.”¹ “It is during this period that the Hoysaḷas clearly perceived their political, military and cultural objectives and goal” says Dr. S. Settar, commenting on the reign period of King Viṣṇuvardhana. “The real foundations of the kingdom, both political and cultural, were laid by him”².

“Though on the basis of coin legends, observes Dr. B. Chattopadhyaya, “and other evidence, a number of coins can be attributed to the Hoysaḷa family, it is difficult to determine when they first began to circulate. They had certainly come into circulation in the time of Viṣṇuvardhana.”³

Among the coins issued by or attributed to Hoysaḷa Viṣṇuvardhana, Elliot⁴ has illustrated one Double lion type of gold coin. It is now in the Prince of Wales Museum, Bombay. Another gold coin has been illustrated by Dr. A. V. Narasimha Murthy⁵ which is in the Government Museum at Bangalore. Besides there are three other types of gold coins—a single lion type, a *Varaha*⁶, and a gold one, the last of which is in the Madras Government Museum.⁷ Dr. B. Chattopadhyaya has illustrated three gold coins of Viṣṇuvardhana, seven gold coins and a copper coin of Narasimha.⁸ The coins attributed to Viṣṇuvardhana have been made on the strength of his titles, *Śrī Talakāḍuḡoḇḍah Śrī Nonambāḍi ḡoḇḍah* or the Hoysaḷa Crest of the dynasty.

There is also an illustration of a copper coin of the same king in the Mackenzie collection⁹ which bears the figure of Śrī Rāmanuja.

The present one¹⁰ is a copper coin which can also be attributed to Hoysaḷa Viṣṇuvardhana. It weighs 4.6 grams and measures 1.25 and 1.4 cms. As it is slightly broken at one end, the original weight of this coin may be about 5 grams. It is 0.45 cms thick. The metal is copper and brass mixed alloy.



A Copper Coin of the Hoysalas

Oby. A linear circle is visible. Within the circle are two maned lions, a person is sitting on the bigger one. He appears to be holding something which is now indistinct. At the top is a small line, probably-Sun. At another corner is the letter Cha.....

rev. has a double line and in the middle are the legend *Ta-la-Kaḍa* (ತಲಕಡ).

The coin does not contain the name of Viṣṇuvardhana. But the legend *Ta-la-Kaḍa* on the reverse and the lions (Hoysaḷa Crest) on the obverse clearly prove its identity. For convenience, it may be called a Double lion type. The significance of the present coin is that so far, no copper coin bearing the legend, apart from that of the Mackenzie collection, of king Viṣṇuvardhana has been found, although it could be generally assumed that coins of lower denominations in different metals similar to gold ones issued, were also in circulation during this period.

An Inscription¹¹ of 1204 makes reference to all such terms as *gadyāṇa paṇa*, *hāga*, *vīsa*, *tāra* and *kāṇi* but it does not describe the value relations between them. However coins of the Gangas weighing 1.3 and 1.5 grains represent a *hāga*. An inscription¹² also refers to smaller denominations—*hāga* and *vīsa* and state that a *hāga* is equal to 1/16 of a *gadyāṇa* and a *vīsa* is equal to 1/4 of a *paṇa*. A record¹³ in Karnāṭaka of 1261 states that the value of 1 *gadyāṇa* is equal to 10 *paṇa* and 1 *haga*. Thus one *gadyāṇa* is equal to 10 *paṇa*, one *paṇa* 4 *hāga* and one *hāga* 4 *vīsa*¹⁴.

Considering the currency system and coins under the Hoysaḷas, the present one may be taken to be a *hāga* among the three types¹⁵ which were current then being *gadyāṇa*, *paṇa* and *hāga*¹⁶ (The thickness, weight and design of the present one would indicate that it may not be a fractional currency).

The value of this coin can be approximately worked out on the basis of a Bēlūr inscription.¹⁷ It refers to the supply of milk worth one *vīsa*¹⁸ (a fractional currency) to the temple, evidently for service and offerings to the god. On a supposition that the quantity of milk supplied would at least be not less than half-a-litre per day costing about a rupee, the value of the present coin in terms of modern currency would possibly be about four rupees.

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LOCAL-SELF-GOVERNMENT IN KARNATAKA WITH SPECIAL REFERENCE TO URBAN PROBLEMS

V. S. Patil

I. Introduction :

Urban government and politics occupies the middle rung in the hierarchy of state administration, within the federal set-up of our country. It is between the rural government and politics below and the state government and politics above as its domain. These three rungs of administrations, i. e., of state, urban and rural, are not like the water-tight compartments. Ashok Mehta writes:

“We cannot afford to think of the urban and rural areas as water-tight compartments”¹

Urban government is like a leader to the rural government just as the state government to the urban. Urban government and politics, as a unit in the state organism, has double roles, one as a leader to the rural government and politics and the other as a subordinate support to state politics. These two roles of the urban government and politics have yet to emerge as independently, and properly then get harmonised with the whole body politic of the state administration within the federal set-up of our country.

State, urban and rural governments coincide at many points and even in their areas. District, taluk and village administrations are the three tier systems of the administrative decentralization. These district and taluk places are also urban areas, having urban government, like corporations and municipalities, which are the products of the local-self-government. Even, the same district and taluk places are the centres of the units of rural government, like Zilla Parishads and Taluk Development Boards respectively. Thus, state, urban and rural governments and politics are not completely separate water-tight compartments.

These triple levels of governments of state, urban and rural, are the products of the high sounding principles like democratic decentralization or grass-roots of democracy, specialization, community development, national extension scheme, plan projects, welfare idea, development administration, and local-self-government, etc. Whatever may be the base or principle,

these governments are expected to solve local problems of the concerned area with the task of developing welfare functions.

Compared to other urban government and politics in India, the position of these in the Karnatak State is hopeful. Though, Bangalore, the capital seat of the state, founded by Kempegouda, ranks sixth² in population among the Indian urban places, it has not yet, luckily, reached a crisis point, which has caused indirectly for growth of immoral practices like prostitution. Nor there are any serious problems of sanitation, water-supply, transport, cost of living, slum areas and evil practices like, smuggling, adulteration, cheating, pick-pocketing, hijacking, molestations, etc, as found in Bombay. Mysore, the seat of old princely rulers and the abode of the Goddess, Chamundeshwari, and of the Mysore University, has even fewer problems.

Hubli-Dharwad area, Davangere-Harihar and Shimoga-Bhadravati are developing fast. The first has already having a Corporation, the Karnatak University and the religious centre of Murughamath. The remaining two have been developing due to industrial plants like, Kirloskar and iron factory respectively. The government of Karnatak has consented to the formation of corporation in each of these areas.

With reference to Municipal areas in Karnatak, Gadag-Betgeri has earned a name with its sanitation system, road and town planning.

Recent trends of urban government and politics are hopeful, because of political consciousness, and civic sense among the urban people of Karnataka.

II Historical Background:

Urban areas, Towns or Cities are natural historical growths. The reasons for this growth may be different in different countries and even in a country in different cases. Generally, it is understood that concepts like 'urban area', 'urbanization', in the same fashion, 'de-urbanization', are borrowed from the western developed countries. The idea of Urban areas, historically speaking, is not borrowed, but has grown naturally, according to human necessity. The capital city of a country became the first urban area, the city or the town. Monarchy, the first form of government, might have contributed to an urban area, as the centre of its administration, which was generally known as the capital of the empire, the area or the country. In that case, ancient countries, like Babylonia, Mesopotamia (the present Middle East Asia), Egypt, India and China, might have such first capital cities.

The big empires, later, naturally, were sub-divided into small kingdoms, for the administrative convenience, with their own sub-capitals or small cities or towns, as the centres of these sub-divisions, which, in India, later came to be called the princely states. Thus, the monarchical system of administration produced the first urban centres. It is an irony of history that most of the ancient capitals, which even attracted the foreigners, now, have become barren rural areas. Hampi in Karnatak, for example, which was the important seat of the Vijayanagar Empire and which was appreciated by the foreign ambassadors like, Ibna Batuta, Nicolo Conti and others, is now a barren rural area. So is the case of Sriranga Pattana, the seat of Hyderali and his son, Tippu Sultan, known as the tiger of Mysore, who had contacts with Napoleon Bonaparte. Halebeedu, Beluru, the seats of Rashtrakutas, Banavasi, the seat of Kadambas, Kitturu of Rani Channamma, the first woman freedom fighter, not of Karnatak only, but of the country, Kalyan, the seat of Chalukyas and the seat of 'Anubhava Mantapa' (the wisdom chamber) of Sri Basava, Aihole, Pattadakallu, the seats of Badami Chalukyas are all now rural areas.

Till the advent of the British in India, monarchy was the common form of Government, in one way or the other, throughout the country, from Kanyakumari in the South, to Kashmir, in the north, consisting of about more than five hundred big or small kingdoms. The capitals and sub-capitals of these kingdoms, were the only urban areas, and the remaining were the rural areas with agriculture as their main occupation and the cottage industries as the secondary.

Urbanisation of modern type, i. e., in addition to capitals and sub-capitals, has developed in India, after the establishment of the British East India Company in India (in 1600 A.D.). Urbanisation in India has developed along with the development of the British companies, firms, industries, communications and administration. The industrial areas, the administrative centres and sub-centres, the communicative places, like ports, railway junctions, stations, radio stations, aerodroms, have developed as urban areas. They are all mostly British contributions. Even the military cantonments have developed as urban areas.

The administrative set-up was reorganised, particularly in British India, after the take-over by the British Crown of the East India Company in India, in 1858, as a result of a proclamation by Queen Victoria of England. That was the landmark and the turning point in the Indian administration as the whole country, including both the British India under the Governor-General and the Governors of the provinces, and the Indian India under the autocratic princes, but except the Portuguese areas like Goa, Div, Daman and Pondicherry, came under the single system of administration.

The British India provinces were, administratively, sub-divided into the Divisions under the Divisional Commissioners, the Districts under the collectors and the taluks under the Tahasildars (Mamledars). The centres of these administrative units have developed as urban areas.

The idea of the local-self-government is the contribution of the Britishers to the Indians. Lord Ripon (1880-1884), the Governor-General of India, especially, was the father of Local-self-government.³ "In the British period, the local governing bodies in India were Corporations, Municipalities, District Boards and Village Panchayats."⁴ The urban governments, thus, are the results of the local-self-government.

Educational institutions like, schools, colleges, and universities and hospitals, sanatoriums, also, caused for urbanization of the areas and consequently, for setting up of urban government like corporations, and municipalities.

Urban government and politics, on the one hand, and the rural government and politics, on the other, became clearly demarcated after the independence of the country (15th August, 1947) according to principles like democratic decentralization or grass-roots of democracy, community development, national extension scheme, plan projects and Panchayat Raj, etc. Donald B. Rosenthal writes: "The Gandhian ideal of political decentralization has apparently resulted in the creation of an elaborate system of rural government"⁵.

The centres of the rural administration, like of Block and Taluk Development Boards and Zilla Parishads, coincide, in Karnataka, with administrative centres like taluks, and Districts. Thus, the rural administrative centres, also, have been developed, further, into the urban centres.

The present Karnataka State was re-organised, on a linguistic base as proposed by the State Re-organization Commission, appointed by the Government of India, in 1956, into the Mysore State, on 1st November, 1957. Erstwhile areas like the Bombay Karnatak (i. e. four districts- Dharwar, Belgaum, Bijapur and Karwar), the Hyderabad Karnatak (i. e. three districts- Gulbarga, Bidar and Raichur), the Madras Karnatak (i. e. one District- Bellary) and the Kerala Karnatak (i. e. one taluk- Kasargod) integrated in the Vishal Mysore state. The state was renamed as Karnataka, its present name, in 1973, though that was aspired for earlier.

The Karnataka State covers the area, in total, of 191, 773 square Kms*, with population, approximately now of three and half crores (29, 299, 014)*. It is divided, administratively into 19 districts and 172⁶

* The Times of India Directory & Year Book Including who's who, 1977

taluks. In regard to the rural development administration, 68 taluks have two unit Blocks each, since their population is between 90,000 to $1\frac{1}{2}$ lakhs, and four taluks have three unit Blocks each, as their population is above $1\frac{1}{2}$ lakhs each.⁷

Corporations and Municipalities are the only, predominantly urban governments in the Karnatak State, as elsewhere in India. There are, in total, four corporations in Karnatak State (i. e. Bangalore, Mysore, Hubli-Dharwad and Mangalore). The Government of Karnatak has accepted three proposals out of seven, for the formation of corporations in Davanagere-Harihar, Shimoga-Bhadravati and in Belgaum. In India, in 1964, there were only 21 corporations.⁸ U. P., the biggest state in India, alone, had 5 corporations in 1964.⁹

Each taluk place, generally, is having at least a municipality. Out of 172 taluks, except the corporation areas (i. e. Hubli, Dharwad, Mysore, Bangalore, Mangalore), remaining 167 taluk places have their own municipalities. Even, within a taluk area, in some cases, in addition to the taluk place, one or two other cities are, also, having the municipalities, for example, Laxmeshwar in the Shirahatti taluk, Ilkal in the Hungund taluk, Gajendragad in the Ron taluk, etc. So, the number of municipalities, in the Karnatak State, is bigger than the number of the taluk places. The total number of municipalities is 167 and odd.

Karnatak State is mostly rural with more than 25,600 villages with 7,444 village Panchayats, as the rest of the country, generally, lives.¹⁰ (In total in India 5,58,088 villages.)

III Meaning of Urban Government and Politics:

The concept, 'Urban', generally, connotes a large geographical area, a large population, educated and civilized people compared to the rural. It may even connote the development of area with modern scientific, communicative and industrial facilities, opportunities or scopes. It is almost an opposite of 'rural'.

The ideas of urban and 'urbanization' stand for 'reform', modernity, change, fashion and upto-dateness. 'Rural', on the other hand, refers to old, traditional, uncivilized and even uncultured ideas, views, life and institutions.

There is no absolute standard or criteria, anyhow, to fix the meaning of the word 'Urban'. Population factor, though generally considered, is not a standard criterion. Even a less populated area with educational centres, opportunities of communications, firms, industries or with important government offices, may claim an urban status. Population, therefore, is not the only determining factor of urban area.

Occupations, mainly the non-agricultural, are the other important determining factors. Industrial, managerial, official business, trade, commerce, etc., urbanise the areas.

The administrative centre and sub-centres like district places and taluk places, in Karnatak, are, generally, considered as urban areas. Plans, projects, firms, industries, educational institutions have been, naturally concentrated in these administrative centres and sub-centres, since having the administrative and communicative facilities.

The Urban governments in Karnataka are, mainly as in India of two types, corporations and municipalities. Here, also, there is no fixed criteria for the formation of Corporation or Municipality: A larger Urban area, both in population and area, generally claims a corporation status and a smaller, a municipality.

Donald B. Rosenthal has suggested in this connection :

“There are no all India criteria for the creation of corporations with the result that some states like Rajasthan have no corporations, even though the city of Jaipur has over 400,000 people. At the same time West Bengal has given corporation status to the city of Chandernagore with a population of only 67,000.”¹¹

Approximately, one lakh population may be the requirement, (as in case of Mangalore) for the corporation status. Hubli-Dharwad area had approximately $2\frac{1}{2}$ lakh population, when it became a corporation.

For a Municipality, a city may have, approximately, minimum 10,000 population.

Urban government, in short, is an urban political machinery, which administers locally by the local leaders, generally, according to the will of the area.

In this paper, “politics” is used in the sense of public management of social, economic and community problems of the area.

IV Organization of Urban Government :

The Urban governments, like corporations and Municipalities, are the offshoots of the local-self-government. They are the statutory bodies. The Bombay state Municipal Act, G. R. No. 26, 1850, was the earliest Act, on which the concerned Acts of other provinces, were based, and on which Municipalities were organised. Cities with only 6,000 and odd population claimed the status of Municipality, e. g., Kaladgi of Bijapur District in

Karnatak, had only 6109 population, when its Municipality was established in 1-9-1865.¹²

Municipalities, in the beginning, were nominated bodies under the presidentship of the collector of the concerned district and Vice-Presidentship of the Tahasildar (Mamlatdar) of the concerned taluk.

After independence, urban governments, both corporations and Municipalities, became elective bodies, especially after the implementation of the new Constitution, with their own elective Mayors, Deputy Mayors, and Presidents and Vice-Presidents, respectively. Size of the corporation body and the Municipal body, depends on the population of the area. Constituencies, here, are called wards. Minimum qualifications, for a corporator or a councillor, are residence, citizenship and age. Dr. V. V. Teggamani was the first-elected Mayor of Hubli-Dharwad corporation.

These bodies are periodically elected for a term of four years, but they may be extended by an order of the government. Most of the corporations, municipalities in Karnatak, were taken over by the Government, during the emergency and even after.

The administrative chief of a corporation is a Municipal Commissioner, who is, usually, an I. A. S. officer, a lent-hand of the government, and who is assisted by a Deputy Municipal Commissioner, who is also a government lent-hand. Corporation maintains its own executive, clerical and manual labour staff, recruited by its own Selection Board. Other Government Officers on the area, like district Dy. Commissioner (even a Commissioner of the Division), Assistant Commissioners, Health Officer, Educational officers, public works officers, Agricultural officers, and others may, co-operate in the administration of corporation.

The Chief Officer is the executive head of Municipality, who is also a government lent-hand, who administers with other executive, clerical and manual labour staff, recruited, locally by the Municipal Selection Board.

Each body is having its own committees like General, Managing, School, Dispensory etc.

V Role of the Urban Government and Politics:

Urban governments are the units of local-self-government which aim at, solving the local problems, locally by the local leaders. They have the educative value. Tocqueville writes:

“..These constitute the strength of free nations. Town meetings are to liberty what primary schools are to science. They bring it within the

peoples reach, they teach men how to use and how to enjoy it. A nation may establish a system of free government, but without the spirit of municipal institutions it cannot have the spirit of liberty”.

Burke has exaggerated the role of local-self-government. He writes:

“It is the first link in the series by which we proceed towards a love to our country and mankind”.

If democracy is accepted as the best form of government, local-self-government is the best expression of democracy. Burns dictum: “Self-government is better than good government”, is, still popular.

Regarding the role of local-self-government, Lord Bryce writes:

“...the best school for democracy and the best guarantee for its success is the practice of local-self-government”.

From administrative point of view, urban government or the local-self government, in general, relieves the burden of the central government, on the one hand and encourages the local people to participate in development administration. J. A. Corry writes:

“We miss the essence of democracy if we think of it mainly as something practised by statesman in a distant capital and forget that it consists of an attitude of mind towards and a method of dealing with all the stresses and strains of living together in a society”¹³.

Local-self-government aims at economy, efficiency, and quick action. It develops social, political, and economic consciousness among the local masses. Urban governments, especially, as the units of local-self-government, provide leadership to rural government. At the same time, urban governments provide valuable assistance to the state administration in solving the urgent and burning problems of urban areas like sanitation, drainage, traffic control, etc.

Urban government is responsible for many essential, welfare and developmental functions and programmes of the urban area including daily life. It is responsible for the functions of utmost importance, like water supply, drainage, sanitation, maintenance and repairing of roads, lighting arrangements, town planning and medical relief. It performs the routine work of registering birth and death, vaccination, fire fighting. It promotes intusion of cultural importance like schools, libraries, reading rooms, museums, art galleries, public parks, zoos, ‘dharmaśālas’, guest houses.

Corporations have developed transport and communication systems including trains, trams and buses.

Donald B. Rosenthal for example appreciates the work of the Poona Municipal Transit Company:

“By most standards Poona has operated one of the better run municipal bus systems in India ever since the private companies were municipalised in 1950”¹⁴.

Civilization, generally, emanates from the urban area. Modernity, development, fashions, new outlook, etc., first, can be seen in urban areas and which pour down to rural areas.

Lucian W. Pye writes:

“Historically all complex and advanced civilizations have sprung from the city, and in the contemporary world urban life is the dynamic basis for most of the activities and processes we associate with modernity and economic progress. Therefore any systematic effort to transform traditional societies into modern nations must envisage the development of cities and modern urban societies”¹⁵.

VI Problems of Urban Government and Politics:

Dominance and interference of the state government, is the first and foremost problem of urban governments in Karnataka. Most of the urban governments were taken over by the state government during emergency and even after.

Urban governments, after all, are subordinate bodies. They are statutory bodies, sanctioned with autonomy, within a particular area of jurisdiction. “Ultimate authority”, writes Donald B. Rosenthal, “in the largest cities—the municipal corporations—continues to rest with state governments and with administrative officials”.¹⁶

J. A. Corry explains the delicate position of local governments:

“Local government is subordinate government. The city or the country unlike the states or provinces in a federation, has no assured sphere of autonomy that the constitution protects. At any time, a law passed by the appropriate legislature may abolish local government, or modify or take away some of the powers exercised by it”.¹⁷

Local governments have to function within the jurisdiction sanctioned by the statute. E. B. Schulz writes:

“Some central governments pursue the policy of enumerating of itemizing the powers which local units may exercise. Others confer powers

in broad and general terms for instance, by authorising a political subdivision to deal with matters of local concern"¹⁸.

Party-politics or power-Politics, is the second problem of urban governments. Local politics, naturally, enters these bodies and worsen the case. Hence, instead of expecting welfare and development functions, citizens may have to spectate party rifts and conflicts. State politics from the above, instead of solving such problem may further worsen it.

Lack of leadership is the third problem of urban governments. Local leaders are mostly the unemployed graduates and unemployed feudal people. Real workers, social reformers and enthusiastic intellectuals are rare. Hence, party-politics and administrative evils like corruption, delay, waste, negligence etc. Corruption is so rampant that even for registering birth one has to bribe. Municipal administration, in short, mainly depends on money. One should not wonder, if a municipal peon or clerk owns a bungalow.

Appointments, promotions and municipal services mainly run on communal, caste and corruption basis. Votes are mostly sold or purchased in the elections of corporators and councillors. This is another problem of urban governments. This is due to illitarcy, poverty and ignorance of the people.

Lack of co-operation is yet another problem of urban government. Co-operation between representatives and public, representatives and officers, and between officers and public, is essential for smooth working and to undertake welfare and development functions. This is not easily available.

Cities are enlarging and expandig with the explosion of population, inflow of population and floating population. Municipal administration, naturally, is lagging behind in providing sufficient social services in the fields of communications, housing, supply of water, electricity and gas. Sanitation, unemployment, poverty etc., are the common problems, that arise in such a situation.

Lastly, the urban governments are not self-sufficient in financial matters. Lack of financial resources, which is mainly due to bad management of financial affairs and corruption, hinders municipal functions. Urban governments have freedom to collect revenue through a number of sources like (i) taxes on buildings and land, (2) on vehicles, (3) on animals, (4) Octroi on goods, (5) Water tax etc.

Because of scarcity of funds, these units, naturally, have to request for state financial aid, they have to raise loans form public or banks, which will create special problems.

VII. Suggestions for Improvement:

Many reforms may be suggested, but how far they may be implemented is the important question. That ultimately, depends on leadership, quality of the elected body and consciousness and eternal vigilance on the part of the public.

Firstly, mass education is a pre-condition for the success of a democratic body. Public should have, at least, knowledge about vote-election, local-self-government, and be conscious of their own development. Proper training, guidance, knowledge of handling matters are essential to municipal bureaucracy on which, mainly, the success of urban government depends.

Secondly, well-organised double party system is accepted generally, as a pre-condition for the success of a democratic body. Scope for an alternative party to form an urban government is very essential, for critical improvements over previous administration.

Thirdly, corruption at all levels of municipal administration should be rooted out, so that, the financial condition of the municipal bodies will, naturally, improve and there will be no necessity to depend on state aid or loans.

Fourth, many problems of urban areas will be solved or minimised, if rural areas are properly developed through scientific improvement of agriculture, cottage industries, mass education and the creation of minimum modern facilities like electricity, supply of water, post and telegraph, drainage system, sanitation, health care etc.

Fifth, autonomy for urban government is essential. Freedom is a prerequisite for development. State bossing hampers municipal administration. The state should give general guidance, direction, encouragement as a faithful leader and well-wisher, but it should not interfere in its daily-life, its party politics or power-politics. Periodical elections must be conducted, otherwise, the very purpose for which these local self-government bodies have come up, will be crushed. These bodies should not be superseded, nor be taken over by the government.

Sixth, our town planners should have to develop our own independent, Indian style, approach, method to suit our environment, resources and skill. Urban property should not only be regulated but also costly constructions of R. C. C. bungalows should be stopped, which will mean saving in nationally scarce material like, cement, iron, etc. But our town planners "still see the urban problems of developing societies in the light of the concepts and theories evolved in the west."¹⁹

Seventh, family planning, undoubtedly, the most essential thing, to control the population growth of these areas, should be promoted effectively.

And lastly, de-urbanization should be encouraged along with rural development.

VIII Conclusion :

India, in general, since pre-historic times, has been living in her villages, with agriculture as her main occupation. The plans, projects, programmes and the development functions, in India, should mainly be rural oriented. The urban facilities should be within the reach of even rural areas. De-urbanization, thus, starts and it is most essential in order to avoid over-crowding in cities and to minimise exploitation of rural areas by the educated urban people. If differences between urban and rural facilities are minimised, then ideas like, socialism, welfare, justice to all, may be realised. India develops, in short, if her rural areas are developed.

FOOT NOTES

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CAN WE BE OF ANY SERVICE TO OUR VILLAGE FOLK ?

Gopāla Saraṇa

ABSTRACT

Developmental planning can be either macro- or micro. Since the early 1950's, in the so-called developing countries, stress on economic development has been the order of the day. This has meant planning for the whole nation from the top. Rural development can and should be micro-development only. No serious attempt has been made to devote special attention to it in its own right. It has been surmised that if the nation's economy is developed rural development will take place automatically. Have we been right in assuming so? Can something be done to develop our villages without hindering the national growth? What role, if any, can the disciplines like economics and anthropology play ?

The growth of Indian education since our independence has been stupendous. But India still remains far behind the advanced countries of the world in both the quantity and quality of education. A country's educational system cannot be considered altogether bad or unproductive if its scientists have successfully detonated a nuclear device. But has our educational system been relevant with respect to its form, content as well as its mode and medium of instruction ? Have our youth not become demoralized and alienated after we have "educated" them? We find it hard to communicate with our own family members about our scientific and intellectual pursuits. What kind of communication channels can we open up with the average villager who has not received instructions even in the three R's? It is obvious that we cannot wait till our educational system is totally overhauled and is transformed into an instrument of service to our village folk. The moot point is : can we do anything at all, here and now !

I. MACRO-DEVELOPMENT, MODERNIZATION AND ECONOMIC ANALYSIS

The issues being discussed here are complicated. A lot of common sense opinions have been expressed. There are not sufficient hard data to scrutinize. I particularly suffer from the disciplinary constraint, if not a limitation.

Anthropologists are very hesitant to prescribe something to others. They have little, if any, experience in policy-making. I, therefore, can hardly do anything more than raise some issues and pose some problems. If I succeed in arousing interest in some readers of this paper my efforts would be amply rewarded.

The uniqueness of India's freedom struggle and the manner of our winning the independence is too well known to be repeated. The way in which independent India waged a war to lay a solid economic foundation for her hard-earned political freedom is not less spectacular. It spread like wild-fire and has far-reaching consequences both for her own people and for other Asian and African countries. This gave rise to the idea of unregimented developmental (economic and social) planning. But what a pity it is that even in the land of Mahatma Gandhi planning means primarily economic planning and development is taken to be synonymous with economic development. Let us probe into the matter a little.

Such an atmosphere has been created in the last quarter of a century that all development is assumed to be economic. The most glaring fact in the so-called developing countries has been the abject poverty of a majority of their citizens. For example, a former Planning Minister had estimated that even in 1974 as many as 67 percent of the entire Indian population were living below the poverty line. It was the situation after India had had planned economic development for over two decades and had completed four 5-year plans. Being concerned about poverty is not at all surprising.

Poverty is usually defined – or at least conceived – in economic terms. Both the Western economic advisers of some of the developing countries as well as the native practitioners of the art, view poverty as a purely economic problem. Consequently the builders-of-the-nation in these countries are also determined to adopt economic measures to eradicate poverty. In simple terms poverty is equated with lack of capital, lack of modern managerial skill, outmoded technology and an overall lack of understanding as to how the so-called economic processes operate. Even in a country like India both the planners-many of whom may be professional economists-as well as the other prominent politicians believe that it is the absence of, what the noted American economic historian Karl Polanyi; called, a 'market mentality' that the Indian agriculture has remained backward. To eradicate poverty, therefore, we have to harness our economic resources and to go ahead more-or-less on the path shown by the developed countries of the world, both communist, and non-communist in building their economies. Poverty is also closely linked with the scarcity of all kinds-particularly of material resources. This fact has also influenced planning in the developing countries.

It is not uncommon these days to hear of economic analysis, economic planning, economic policy and economic aid. It should not give the impression

ssion, however, that economists have something extraordinary at their disposal. As Dalton has succinctly put "it is not the superior genes of the economists which make them effective analyzers of development. It is the quantifiable nature of the portion of social reality they deal with...I do not mean to overstate the case. For many problems and processes of national development, conventional economic analysis is necessary but certainly not sufficient" (Dalton 1971, p. 6). One of the main reasons why economics has been more successful, than any other social science, in this area is that it represents what has come to be called nowadays a, 'social science approach'. In it the contrivance of conceptual categories, drawing of analytical conclusions, making systematic comparisons, quantifying the data and deriving policy-prescriptions are quite common. Economics, of all the disciplines in the West, has developed the most generalizing theory. The economist is convinced that he must create theory to derive policy-prescriptions. This makes quite a difference when one talks of the developed economies of the West, or even of the developing countries at the national policy planning level. This kind of planning requires quantifiable data about the actual expenditure and an estimate of the probable income. At this level the kind of policy prescriptions the economist makes are often useful and sometimes even successful. It is not surprising that in this kind of an atmosphere the economists in the developing countries—some economists may be exceptions—have been primarily interested in development from this narrow 'economic' perspective. Of course one cannot criticize them for that. On the contrary that perspective needs to be understood and taken note of.

When an economist talks of development—whether development at the national, and regional levels or at the level of the local community—he is interested in the continuous rise in the community's income. To him development is a long-term continuing process in which new, improved and more diversified activities and technology are constantly being fed with the avowed and most important purpose of raising the income of the community continuously. The idea of modernization is intimately linked with that of development. Again, keeping in view the so-called socio-economic perspective of change held by the economist, modernization has been usually associated with the introduction of one or more of several kinds of things, such as : enlarged commercialization, new technology, increased literacy and its wide-ranging effects, capital formation, links between the hinterland and regional, national, and eventually inter-national centres in economic terms. In the developing countries a particular phenomenon often mentioned by people is the lag in political and social institutions. It is neither a simple nor a painless affair. Quite often these so-called unreformed institutions are supposed to be an obstacle to development—which is usually economic development.

When on a traditional economy, political system and social institutions certain economic and cultural innovations impinge, and when these innovations are constantly feedback, then a process of interaction begins. Its cumulative result over a long time is called modernization. It is a sequential process of cumulative change over time, generated by the interaction of economic and cultural innovations impinging on traditional economy, polity and society, with feedback effects on innovating activities. To put it this way is to point out the problem of inventing analytical categories which reveal the strategic workings of such a complicated process in the real world of developing areas. "The conceptual categories must include both economic and non-economic attributes; they must show how the attributes mutually affect one another in changing traditional society; and in what sequence, over what period of time, and with what consequences"(Dalton 1971, p. 21).

This perspective of modernization is not confined to economic amelioration only. As Dalton has pointed out in the above quotation, it has a far-reaching effect on the personal as well as the societal aspects of a people on their ideology and their values. However, modernization to an economist means an emphasis on the economic aspects of a very complex series of issues. It is assumed that once the so-called economic modernization sets in at the highest level, it should not be difficult for other things to sort themselves out. I shall like to quote here from Robert A Solo's book on *Economic Organizations and Social Systems*. Solo has incisively commented on the importance of what he calls the "cognition mechanism". Even for economic modernization it is essential that the people, who are provided with some modern gadgets should be able to conceive and appreciate them and understand their value. This is necessary from both sociological and psychological points of view, for their active participation and involvement in the task of development. Professor Solo says that "Development requires an appreciation on the part of the mass, hammered into instincts, of how the machine works, of what makes it go, of what care the machine needs, and of the pace and discipline that it demands of its human partners. Culture must also be shaped to an appreciation of the machine as an extension of human power, as the instrument of a man's will. There needs to be a pride and pleasure in the machine's inherent beauty, in its performance, in its perfection.....Given this cognition of mechanism, skills will spontaneously evolve and will adopt to the need and to the occasion" (1967, p. 417).

Planning done at the macro-level is the normal kind of developmental planning adopted by most of the developing countries. I hasten to add that probably it is a necessity which one cannot avoid, ignore or bypass. I would like to submit here that when it is a question of increasing the wealth and the economic resources of the nation, of modernizing the means of production

of the country, increasing its GNP to bring it to the level of the so-called developed countries of the world, then macro-level planning cannot be given a go-bye. There the kind of quantified data for which the Western economists have developed economic analysis for their economic system would provide a framework which must be noted, if not adopted wholly, by the economists of the developing countries for developing their countries' economy. I have no quarrel with that. But my contention is that when we talk of rural development we cannot afford to ignore the very basic fact—which has been glossed over at the national level though it would be good not to do so—that mere economic incentive to our rural folk would not be enough for the avowed goal of economic development.

The economic dimensions of development are most intimately linked to the level of modernization achieved. In other words, the lower the level of achieved development, more powerfully do non-economic characteristics of a traditional society seem to impede the economic development. It is true that the most powerful changes in any traditional society are brought by economic and technological innovations alone. But, as Dalton has succinctly pointed out at one place, the mistake which the planners in the developing countries usually make is to lay much too much emphasis on economic development because the economic condition of the masses is very bad. They defeat their main purpose by doing so. It is seen that the less developed the economy of a people is the more need there is of an all round development. If mere economic aspects are over-emphasized the process of development in all fields, including the economic field, receives a setback. Herein comes anthropology.

What has been the traditional approach of anthropology may seem to be inadequate for macro-level planning. In the context of the present discussion, however, anthropology presents a picture which is different from that of economics. It is likely to have a great sobering effect. Let me quote here a very balanced and sensible opinion of Solo once again : "Everywhere around us, policies are formulated and choice are made that imply some scale of values. Such choice cannot be understood as a result of the random distribution of psychological proclivities and reasoning capacities. There are marked patterns in the cognition of choices that vary from community to community, from social class to social class, from nation to nation." *The long continuity of these variations in the patterns of values-oriented activities can be explained only as the reflex of cultural systems that are inculcated and perpetuated among groups from generation to generation.* Preference map and consumption propensity are not the hard-core ultimates of social choice. They are themselves expressions of cultural systems that remain, to be explored and explained... Often the value basis of individual behaviour, of group activity, and of national policy can only be inferred.

Sometimes, however, a cultural system is laboriously elaborated and perpetuated by an institutional organization" (1967, p. 366; emphasis supplied).

II. THE PROBLEMS OF MICRO-DEVELOPMENT

Let us have a little change of the scenery. We have seen that given certain kinds of data the economic analysis becomes an indispensable tool for national planning and development. What will happen if we come down from the level of a nation to that of a village? There are no reliable data about village economies. For instance, there is no information about the income and output, no data about the balance of payment, no input-output matrices, no productivity measurements, price series, of figures of investment for lakhs of our villages. Economists cannot have generalized theory and therefore cannot derive policy-prescriptions for village economy. Therefore, however powerful and meaningful economic analysis may be for macro-level planning, when it comes to plan and develop our rural society it is ineffective.

One could shrug one's shoulder and question the wisdom of bothering about planning and development at the micro-level of a village community. Once we have taken care of our macro-level(national) development the consequences from that are sure to follow. In a sense it is a valid perspective; which is very much in vogue at present. Even those who brush aside the need for local level planning will, however, not find it easy to justify the neglect of our village communities. The goal of increasing the wealth of the nation will not be fulfilled if the conditions at the grass-roots level and the process of thinking of the teeming millions in the country (their requirements, their attitude toward life, etc.) are not kept in mind. All these have a great relevance for macro-level planning as well. The regret is that it has not been done so already.

Anthropology has always tried to be very close to the people whom it has studied. The primary focus of anthropological study has been on the tribes and the village communities of the non-Western world. In his study the anthropologist tries to penetrate the mode of thought of the group he investigates. Talking of rural development, in which there has to be some kind of participation by intellectuals and academics, we should keep in mind the *Gemeinschaft* structure of small-scale societies and communities. Anthropologists have been very sensitive to their subjects' feelings. The field work technique of the anthropologists brings the investigator face-to-face with the people. He is professionally trained to live in the company of the men being studied. Even though he might be interested in the economic aspects he cannot ignore the interaction of the cultural, the social and the economic

forces. Interest ranges from the activities, relations, institutions, to the values and ideals of a people as well.

If any attention has to be paid to our villages and a need is felt of rural development in its own right within the framework of the overall national development, it does not have to be viewed as an automatic outcome of the national planning. We will have to acquaint ourselves thoroughly well with what is actually happening in our villages and to our village folk. A facile assumption, though erroneous one, is that we are not unacquainted with our villages because most of us have some connections with some village. Most of the educated people in India have adopted, in some form or the other, a pattern of living which is not of the same order as the kind of living of our village folk. It is true that those who live in a village usually have varying degrees of contact with our cities. These people may have a mental picture of the kind of life they would like to lead and which they are not leading in their present habitat. I must say that most of the people in our universities, not excluding our own university in Dharwad, have got only a partial and one-sided view of relationship, if they have any at all, with the village. The available ethnographic data have been provided by anthropologists and rural sociologists. The situation has become complicated because the *hard 'economic'* data needed for an economic analysis, for the purpose of planning and development, are not available. Nevertheless, the factors of modernization have affected the village. Most of them originate outside the local community and filter down to the village in various forms, e.g., new laws, tax provisions, new goods, new seeds and fertilizers, agricultural experts, cooperation, banking new communication channels like the radio, and television under the SITE programme, new political parties and ideologies. The village folk are aware of the different facets of life in which modernization has made, or is likely to make inroads. They are not themselves generators of these forces and probably have not yet developed the capacity to absorb the shock of modernization. Yet the village is drawn into the ambit of the region and even the nation.

The anthropologists have a challenge and an opportunity before them. We must do something in this very noble task of national reconstruction. Our role, to my mind at least at present, does not lie at the level of macro-development and planning. Anthropology has been more concerned with the diversity of human behaviour, institutions and endeavour. It operates with many variables at one and the same time. In ethnographic analysis one cannot carve one particular aspect out of the total skin of life or predict the kind of relationship which may operate between that aspect and the others. He can do something only after he comes to know the people and their problems *in situ*, to borrow a term from archaeology, i.e., the people living

in their own context. Consequently, anthropology has not developed a generalizing theory, like economics, which is abstract enough for deriving simple policy-prescribing formulae. This fact should always be borne in mind.

Anthropology has been interested in the rich diversity of the patterns of living around the globe. Basically anthropology is not an applied discipline. We have applied our knowledge in specific cases. We have been evaluators of the impact of particular items of innovations which brought about changes in simple societies. So while the economists' perspective of development, as was indicated earlier, is a long-term continuous process of new and improved activities and technology, the anthropologists have been concerned with particular innovations and have been emphasizing their cultural complexity. They have done a good job of pointing towards the kind of resistances in the form of values, attitudes, social relationships and the past experiences of the people. But in order to meet the challenge, even at the micro-level, we cannot ignore the role of modernizing agents which are bringing about wide ranging changes. These agents of change are definitely outside the sphere of operation of a village. So if we have to do something for our villages in the form of a planned development, one or two important things cannot be ignored. Firstly, it cannot be based on a vague and commonsense view which has been the main source of information before the economic planners. For this purpose we need intimate portraits of the life of our village folk.

Secondly, as our anthropological experience tells us, the interlocking of the economic and non-economic factors and variables have to be recognized and given their due place in any micro-developmental planning. The richness of ethnographic information about our villages may not be good for deriving simple formulae which the macro-planner is very fond of. This is not to deny the validity of the role of the economic factors in bringing about change. But micro-development will be meaningful only when non-economic factors and variables are also kept in view. Everything old is not necessarily bad and every tradition-bound thing is not against modernity. Any way one cannot be so sure of societal modernization as one can be about economic and political modernization. Whatever else one may say it cannot be forgotten that the abject poverty of our masses must be attended to before any other thing. All efforts have to be made to ignore, bypass or to eradicate, if necessary and possible, many a social custom which comes in the way of ameliorating the conditions of our teeming millions. The task is far from easy.

If we approach the problem of rural development from top we would continue the mistake already made. It would have to originate at the regional, and ideally at the local level. It is also true that neither all the lakhs of villages in India can take up the task of micro-development with their own

resources nor the country's interest can be allowed to suffer in the name of local and regional autonomy. I feel that the discipline I belong to has a responsibility to discharge in bringing to bear its own expertise on rural reconstruction and I am confident that we can do well. What has deterred us is too rigid an interpretation of the concept of cultural relativism, our inertia and a narrow disciplinary self-image. The task of rural development requires funds. A modest beginning with an assessment of locally available resources and talents should begin in the right earnest. One cannot expect a major portion of the national resources to be diverted toward the task of rural development. Both the academia and the rural leaders need to think as to what can be accomplished in the prevailing conditions. But at first we must know what the situation really is. Anthropological contribution here will be invaluable.

III. EDUCATION FOR DEVELOPMENT

Now let us come to grips with the main theme of the present symposium. The organisers of the symposium seem to have implicitly assumed that university education and the university-educated had some relevance for rural development. To me it is an open question. If one were to talk of what the people in the universities could do on their own it would have been probably a little easier. A lot of talking has been done recently about the need to make our education more responsive to the societal needs. In his convocation address here the other day, Dr. Satish Chandra, the U. G. C Chairmna, also referred to 'the problem of relevance, of the purpose of higher education, its significance for society and the individual'. A number of seminars and symposia have been organized in different parts of our country to deliberate on how to bring education to the door-step of an average villager, and how to give a rural orientation to our education, and similar topics. A national conference on "education for rural development" was held in New Delhi. It has recommended that universities should undertake research in carefully chosen areas of direct relevance to rural development, and should introduce, at graduate and post-graduate levels, courses (based on interdisciplinary research) "on social and economic development in the rural areas". The conference was organized by the National Staff College of Educational Planners and Administrators. Behind this recommendation is the laudable goal of linking education with rural development and reconstruction and to prepare a firm economic base for the progress of our country. I clearly see the need for doing so but it would mean demolishing the colonial foundation of our educational system and replacing it with a new one.

The present educational system was imposed on India by the British. Dr. Kothari has this to say about it: "Sir Charles Wood's famous dispatch of 1854 set our, and in a sense sealed, the British educational policy in India. We have still not quite got out of the dismal limitations and orthodoxy of that imposed system. Its key-notes were diffusion of western knowledge and culture; and training of people for subordinate administration and secretarial services in a government controlled and directed by British rulers. The great cultural and spiritual thought of India, confluence of many cultural streams, found no place in the universities first established in the country hundred years ago. With the passage of time, ignorance of their own heritage led people to believe that it was not worthy of serious study and attention. The centre of gravity of India's spiritual life, whatever it was, moved away from India, and has not been recaptured yet" (1969, pp. 2-3). In his memorandum to the Sadler Commission (1917-19) Pandit R.S. Trivedi opined that "Western education has given us much, we have been great gāiners: but there has been a cost, a cost as regards culture, a cost as regards respect for self and reverence for others, a cost as regards the nobility and dignity of life" (quoted in Kothari 1969, p. 3).

Probably India is the only major country in the world where the medium of instruction is a foreign language. No doubt, there are several advantages of English as a medium of instruction in a multi-lingual country like ours. But the losses suffered by the people far outweigh the gains. I do not intend to bore you with the hackneyed arguments about the necessity to change over to an Indian language, preferably the mother tongue. But please permit me to remind you of the implications of the English system of education and instruction through the English language in our country. Education has become a barrier to communication between the specialist and the non-specialist. It is not so in those countries where the medium of instruction is the mother tongue. I find it hard to strike a conversation with the family members on our chosen subject of teaching and research. The only reason for this is not only the high degree of sophistication one brings to bear upon one's professional work. It is also due to instruction in English.

Our present system of education, particularly university education, alienates our youth. It creates a sort of gulf between mind and soul. It is only our mind which is trained. What the mind thinks cannot satisfy our soul. I cannot do anything better than to quote a very beautiful passage from Sir Eric Ashby's book, **African Universities and Western Tradition**. What he says about Africa applies more pointedly and emphatically to India. In many an African country Western system of education and instruction through a foreign language is a relatively recent affair in comparison to that of India. Sir Eric says:

“ For an African the impact of a university education is something inconceivable to an European. It separates him from his family and his village (though he will, with intense feeling and loyalty, return regularly to his home and accept what are often crushing family responsibilities). It obliges him to live in a Western way, whether he likes it or not. It stretches his nerve between two spiritual worlds, two systems of ethics, two horizons of thought. In his hands he holds the terrifying instrument of Western civilization, the instrument which created Jefferson's speeches, the philosophy of Marx, the mathematics and chemistry of automatic destruction. His problem is how to apply this instrument to the welfare of his own people. But he has no opportunity to reflect on his problem. For one thing, **the gap between himself and his people is very great...the universities and graduates are isolated from the life of the common people in a way which has had no parallel in England since the middle ages.** This is the peculiar dilemma of the African University” (quoted in Kothari 1969, p. 77; emphasis supplied).

If the content and medium of our education are not appropriate and suitable, one could derive some satisfaction and pride in the educational expansion since our independence. At the time of partition of India there were only 20 universities and 600 colleges in the subcontinent. Today there are a little over 100 universities and more than 3000 colleges. In the last 25 years the number of students has increased by at least 10 percent each year, though there has been some reduction in the rate during the last five years. This means that every seven years the number of students seeking higher education is being doubled. This spectacular increase in the number of students has created some problems though there are some achievements to our credit too.

Dr. Kothari is of the opinion that “improvement in strengthening of universities should receive the highest priority in treatment as a fundamental national goal” (1969, p. 65). He seems to assume that the national goal can be achieved only by the development of our universities. For the attainment of the national goal it is necessary that we expand our university education. This, he thinks is very important. One would not be wrong in concluding from Dr. Kothari's views that if university education expanded and more facilities were provided with a view to strengthen the universities and colleges the national goal of development in economic as well as in non-economic terms will be attained with greater ease.

I have before me an interesting article which suggests something entirely different from the implications of Dr. Kothari's statement referred to above. In this notable essay, entitled “education's role in development” Alexander D. Peaslee says after analyzing data from 37 countries, that in the last one

hundred years significant economic growth has been achieved only in those countries in which a high proportion of the total population was found in primary schools. He says, and I am quoting, "high enrollments in elementary education do not guarantee growth, other complex factors are obviously needed. But high enrollments appear to be a requisite for scientific growth" (1969, p. 293). This argument is based on the contention that when economies become industrialized and mature and urbanization sets in the requirement for such economies is for more sophisticated kind of citizens rather than those people who are educated only up to the primary level. Then in these cases the emphasis automatically shifts to levels of education beyond the primary, to secondary and higher education.

It is interesting to note that in a 10-year period secondary enrollment in India rose from 1.3 to 3.64 percent. This compares very favourably with the development of secondary education in many of the European countries. We have already mentioned the increase in university education. All told that the secondary and higher education in India have expanded at a very fast rate. If economic development was linked with educational expansion, as Peaslee has tried to find out, then India's economic development should have been much faster. Peaslee argues that India is not a good example of such correlation. Though India had the same rate of expansion of secondary education as European countries had, but it was attained without a basic 10 percent primary ratio. The latter is essential, he holds, for any sizable economic development. In other words, when a country's 10 percent population is in primary school its economic development is much faster. In some countries like India and Egypt university education has expanded very fast and before the base of primary education could be made broad enough. Peaslee holds that if India had emphasized primary education more than the other one's its economic development would have been much faster and the economic outlook would have been much better than it is today.

Peaslee presents an interesting policy framework for increase in enrollment in a developing country. "For an optimum mix, a policy framework for expansion of enrollment of an economically underdeveloped country would begin with 10 years concentration on primary education, which hopefully could bring enrollment up from around 2 or 3 percent of total population to over 10 percent. Then somewhere in the neighbourhood of five years could be spent expanding secondary enrollment from about 0.5 to 2.00 percent. In the final 10 years (while expansion was continued for primary and secondary enrollments), the emphases could be focused on expanding university enrollments from, say, 0.075 to 0.300 percent. As far as education's impact on economic growth is concerned, the record of countries that have achieved development indicates that this type of enrollment expansion would be most conducive to increases in real income per capita" (1969, p. 305).

I think I have painted too dark a picture of our educational system. It will be very wrong to believe that everything in our educational system has gone down the drain. Despite Peaslee's above mentioned conclusion, I see some of gains of the expansion and strengthening of our university education quite clearly. Even if it is true that we could not develop economically to the extent we would have if we broadened the sphere of our primary education we have made very rapid progress in several fields which would have been impossible without the expansion of our higher education. The way of conducting the Satellite Instructional Television Experiment (SITE), the manner of the launching of Aryabhata and clean efficiency of the detonation of the nuclear device at Pokharan all these and several other achievements indicate that whatever the shortcomings, it will be very wrong to conclude that the whole thing is rotten.

IV WHAT CAN WE DO ?

There can be no two opinions that we in the universities should do something about our village folk. Some people see in 'The National Social Service Scheme' for our colleges and universities a good way of linking up university education with rural development. Some others may like us to adopt a village where our boys can dig some holes and build some approach roads, etc. Many more suggestions may be made on these lines. The present Chairman of the UGC feels that "universities and colleges have not tried hard enough to adopt field or practical work as a way of linking academic courses with concrete problems" (1976, p. 5).

I shall like to present before you my experiences as an anthropologist with regard to field work. Of all the disciplines I know of anthropology has had the longest tradition in this country of bringing our students face-to-face with the village folk. This is done as a part of our curriculum and is considered a prerequisite for being a professional anthropologist. Under the guidance and supervision of one or more teachers the students go to a village. They camp in the village for one month. At first they acquaint themselves with the broad details of the village such as its topography, settlement pattern, house types, etc. They do some preliminary mapping also and get acquainted with the village in a general way. They get to know the people who live, the kind of land and landholdings, their level of education, etc. After a week of this exploration and experience in team work they take up different topics for individual research and investigation. Some of the topics are agricultural economy, formal and informal education, religious beliefs and practices, fairs, feasts and festivals, the position of women, childrearing prac-

tices, health and hygiene, inter-caste relations, community development, etc. This provides an opportunity to our students to know first hand how the people in one of our villages live and what are their problems. They are required to present a paper on the basis of the data they have collected which is discussed in seminars in which all the students and staff members are required to be present and participate. But I have rarely come across a student, in the last 20 years or so, who is motivated to help the village folk and to really feel one with them. I am aware that this kind of one month field work is not long enough an experience of a village to create an interest in our youth. My submission is that we should not be too hopeful of succeeding in our goal and should not bank too much on the introduction of field work in the present system of our course design. It may not do the trick of creating the desired interest in our youth in rural development and rural reconstruction.

In a two-part essay on "development and democracy" published in the *Indian Express* in December 1976 Shri J. A. Naik has complained against our economic planning in a typical capitalist manner. "Capital", to quote Shri Naik, "has been the principal source of production for us and not labour". He has made several suggestions one of which concerns us most directly. He feels that India is one country in which the vacations are not at all utilized productively. Let us have his advice in his own words: "It is only the students in impoverished country like India who do not work during long vacations. These students can be taken to the dam sites of innumerable small irrigation projects and bunding schemes, along with their vice-chancellors, professors and peons, for manual work. They may be paid equally as they do similar work". Shri Naik advocates this and other things and expects them to be taken up only in a novel political set up. Can we not take his cue and begin doing some such thing ourselves in the present political set up with our present educational system?

I warned you in the beginning, that I have no definite solutions to the problems. Even in the present set up we should do something to bring the fruits of our knowledge and understanding within the reach of the lay intelligent reader of the mother tongue. English may continue as the language of higher scientific and scholarly pursuits for some more time. But we owe it to our own contemporaries as well as to posterity to write readable books on various subjects in our mother tongue.

If Peaslee's contention is right the base of primary education has to be broadened. The immediate contributions which the universities can make is to launch a massive programme of relentless battle against illiteracy. The village as well as the town folk must be motivated and then instructed in the

three R's. Finally, we can do wonders by taking our present task itself more seriously. We have to raise the morale of our young men and women who come to us to learn something. Besides teaching them the subject matter we must inculcate a sense of proper values in them. We need to develop in them an enlightened outlook, an interest in and appreciation of national goals and a commitment to noble causes and ideals and not a hero-worship of individuals. There is no better teacher than a teacher's conduct and his speech.

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EDUCATION AND LEADERSHIP

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And

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This paper will develop the theme that the interaction between education and leadership is complex and multidimensional, and that it has immense significance for human society. Through the creative process of education, leadership can be generated and developed into a dynamic instrument of socio-economic and political change of a radical order. Education that is wholesome kindles the latent qualities in human beings, thereby constituting the foundations of a dynamic leadership. In the contemporary world one of the principal goals of education at all levels is to train young men and women to shoulder social responsibilities in various facets of human affairs. The imperatives of the modern welfare state have revolutionised the nature, content and techniques of education. In this major task of reordering and restructuring the entire fabric of human civilisation, education plays a vital role as a modernising force. A comprehensive understanding of leadership must look into its role at all levels of the educative structure. To put the relationship between leadership and education in a proper focus, the concept of leadership is conceived in its comprehensive meaning. Such an approach involves looking into socio-economic, cultural, political and other dimensions of leadership. The presence of leadership in one area and its absence in another is not conducive to the overall welfare of any society. Leadership in various spheres of human activity as well as leadership at various levels in the society will go a long way in creating the necessary conditions for a just and stable social order. Leadership is the basis on which the growth and evolution of human society depends. Without effective and meaningful leadership neither purposive change nor profound reforms in the human order are possible. Leadership as a universal category is multi-cultural in its import and significance. It presupposes ethnic and cultural differences among peoples and different nations. True leadership must take cognizance of these differences in order to hasten the evolution of a higher human social order. Leadership involves such attributes on the part of the leader as the ability and readiness to inspire, guide, direct or manage others. A broad conception of leadership clearly refers to certain inherent abilities on the part of the leader. He must possess a personality that inspires the rank and file in the group to implicitly obey his orders and commands. He must also possess intellect that is capable of guiding and directing lesser known people in desired directions. The leader must have a rational mind with the attendant skills of oratory that can sway the group in a responsive manner. His task

is to act as an interpreter of the vital interests and objectives of the group. On its part, the group must recognise the authority of the leader to interpret the basic values, goals and norms of the group in their totality.

The *Encyclopedia of the Social Sciences* defines leadership "as the relation between the individual and the group built along some common interests and behaving in a manner directed or determined by him."¹ An analysis of this definition brings out the fact that leadership is the product of the interaction between the leader and the group. The basis of such interaction is the commonality of interests between the leader and the group. Once this sense of identity is generated between the leader and the group, the leader by virtue of his commanding position in this two-way relationship directs the group to obey his commands. However, it is interesting to know some of the nuances in the relationship between the leader and the group. In one case, if the leader commands loyalty and obedience due to certain conventions, customs, laws, mores and usages, his authority is institutionalised and the relationship crystallizes into one of superior and subordinates or followers. At the other end of the spectrum, the dominant position of the leader rests upon his capacity to appeal to psychological drives like emotions and instincts. This means that his authority is based on his role as a demagogue.

Some people are regarded as natural leaders because as assertive and self-confident individuals they command support from the group to which they belong at the time. However, it must be remembered that an individual who is a good leader under a particular circumstance may not fit into such a role for other situations where the altered needs of the group require a different type of leader. The leader usually emerges informally through broad agreement among the group which he leads. The leader may be elected or he may be nominated or imposed on groups without election, but if such a leader is acceptable to the groups then he will have to develop some form of legitimacy by exhibiting those qualities that are necessary for an informal group leader. In other words, the leader must be sensitive to the hopes and aspirations of the group and he must personify group values so as to become a popular leader in the group. The leader must develop a sense of communion with the group and under certain circumstances he must be prepared to delegate authority for a temporary period to others in the group for certain specific tasks.²

Leadership can be symbolic or creative depending upon the exigencies at any given time. Illustrations of the symbolic leader in the modern and

1. Richard Schmidt, "Leadership", in *Encyclopedia of the Social Sciences*, ed. by E.R.A. Seligman and A. Johnson, (New York, McMillan Company, 1967), p. 282.
2. For further details see W. J. O. Sprott, *Social Psychology*, (London, Methuen, 1952),

ancient times are of such historical personages like Gandhi of India who stood for non-violence and Garibaldi of Italy who exemplified the idea of republicanism as the herald to a later generation of some of the values for which he stood. Creative leadership which is necessarily dynamic in its manifestation, emerges when the personality of the leader is the motivating force for a primordial value or a complex bundle of values or for a goal-oriented programme, attracting groups of men who through their concerted actions create an instrumentality of purposive action. The goal oriented programme may involve material advancement in the techno-economic sphere or in the socio-religious and humanitarian spheres. The distinctive quality of creative leadership is that it involves a fundamental shift away from the extant values of the society to that of gaining acceptance for new values created by the leader. This category of leadership in the initial stages is independent of external influences, though ultimately the leader may be influenced considerably by the push and flow of the environmental factors. The argument is advanced that the leader leads his followers and even while he does so he not only influences them by bending them to his views, but at the same time he is also imperceptibly influenced by his followers. In the normal course, the leader leads but at times it may so happen that the influence of the followers is decisive and irresistible making the leader to be solely guided by the objective interests of the followers.

The crucial issue in any understanding of the concept of leadership is the determination and identification of the objective factors in the society that enable a leader to emerge from among the ranks and create those groups that owe allegiance to the leader. A number of questions arise in this connection. Can the emergence of the leader be explained because of the force of his personality and his creative dash, innovative power or is the leader the product of contingent circumstances or is he the product of his time symbolising the potent ideals and aspirations of the people or that the society has reached such a stage in evolution that it is ripe for change which makes the emergence of leader possible? To frame the questions in a cut and dried manner one can ask as to whether leadership is dependent upon the leader and his personality or is it dependent upon the environment in which he has to operate. It is very difficult to give a definite answer to these questions. It is true that leadership is a function of the leader's personality but yet it cannot be denied that the leader operates within the framework of the environment which also exerts certain amount of influence. The available evidence is indecisive as to the predominance of one factor over the other. However, one can assert without the risk of being labelled as dogmatic, that by definition, the leader is expected to operate from the commanding heights of a preeminent position. This naturally calls for a role that involves seizing the initiative

and leading amorphous groups of people in accordance with the goals prescribed by the leader. Great leaders possess extraordinary qualities and are distinctly apart from the ordinary run of men. These men endowed with unusual qualities mould the environment in a manner that serves their purpose which is formulated in terms of the common good.

A comprehensive understanding of leadership must look into its role at all levels of the educative structure. In discussing the mechanics of education for leadership, it is important to bear in mind the special role of education from the primary to the university level in releasing the sources of creative energy among the younger generation. That system of education which emphasises deeper understanding of their cultural heritage through reliance on the students emotional life, social impulses, artistic tastes and constructive talents will go a long way in creating the necessary atmosphere for fruitful leadership to emerge. Education must be organised in a manner that gives preference to the spirit of freedom. In such a process, the scope of education is conceived to be very wide enabling students to study a variety of new subjects and participate in multifarious activities. Education at all levels must be fully interlinked and integrated so as to provide for mass education as well as elitist education to ensure the success of the democratic experiment through national reconstruction.³ If education is to create leadership in various spheres of human activity, it is necessary that the students must be inculcated with the ideas of productive work, community living and community service. More than this, it must develop among the students the requisite knowledge and skills as also the mental habits of independent work at all levels in the society.

Higher institutions of learning must not merely degenerate into instruments for turning out graduates without drive or purpose. It must be recognised that the quality of leadership ultimately depends upon the quality of education. Unfortunately, for a large majority of students universities are regarded as those institutions where they can complete their formal education. Once the students pass out of the portals of universities they must be equipped to enter different walks of life by filling up the roles of intermediate and even top level leadership. Therefore, the primary task of education is to train the youths to discharge their responsibilities by emphasising the qualities of perseverance, discipline and leadership. To inculcate in all the ability for disciplined and well-organised work in social, political, industrial, and cultural fields as also in their own small groups of community and locality, implies the need to depend upon leadership drawn from the masses. Leadership in its wider connotation demands a very high quality of education, a thorough and distinct

3. *Report of The Education Commission, 1964-66*, (Kothari Commission), (New-Delhi, Ministry of Education, Government of India, 1966), p. 1.

analysis of the problems underlying social issues and greater technical efficiency. Education must equip the youths to realise their civic responsibilities by developing their integrity and strength of character.⁴ The youths must be so trained as to emerge as responsible leaders in a well-planned society. They constitute the pillars of a nation. The strength, vitality and future of the nation depends upon the vision and dedication of its younger generation. The role of the youths in national reconstruction is of vital importance. This throws up the question whether the youths should take active part in the political process. On the one hand, it can be argued that students must not dabble in party politics, though as citizens of a democracy they must endeavour to understand the goals of different political parties in the country. On the other hand, this does not mean that the youths should be apathetic or indifferent to the grave political problems that confront the country from time to time. They need not participate in party politics, but they must be aware of the flow of politics in the nation. By effective participation in constructive activities, students can provide the foundations of a strong democratic leadership.⁵ They must no longer be left to fend for themselves as helpless and shiftless individuals with no moorings in a proper scheme of community life. The students must not look upon the universities as a *cul-de-sac*, that defeats the purpose for which such institutions were created in the first place.⁶

The significance of education for leadership in strengthening democratic institutions is accepted by one and all. Democracy is not only a political philosophy but a way of life in many countries. In a democratic society the people must exhibit a high degree of political consciousness, patriotism and a fervent desire to work for public good. All this calls for a very high quality of citizenship which is fully alive to its duties and responsibilities in the national life. In creating such conditions education has a very vital role to play. In an underdeveloped country where illiteracy is rampant the need for universal and mass adult education assumes greater urgency in the context of preserving the stability of political institutions by generating a modicum of economic growth. In a democracy leadership is not limited to the statesmen who occupy high positions. Leadership must percolate down to the people

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4. However, it must be pointed out that educational institutions in India do not make the youths thoroughly conversant with the rich cultural heritage of the country. Formal conformity with secular education has made Indian universities colourless and unIndian to the extent that Indian students do not develop pride in being citizens of a sovereign democratic republic.
 5. Sriman Narayan, *On Education*, (New Delhi, Atma Ram and Sons, 1962), pp. 73-75.
 6. *Report of the Secondary Education Commission*, (Mudaliar Commission), (1953), (New Delhi, Govt. of India Press, 1962), pp. 23-24.

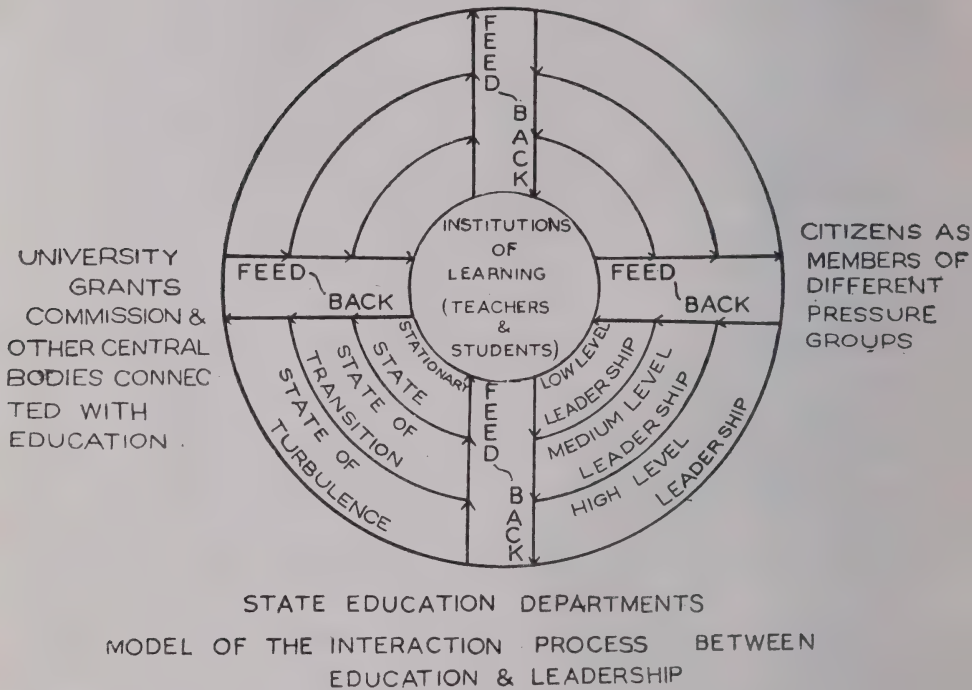
themselves through their forward looking outlook and thinking and by a dynamic perception of their own role in a transitional society.⁷ If the society is pervaded by such qualities democracy becomes worthwhile and meaningful. Democracy involves shared search for solutions, what one can call consensus through dialogue which assumes leadership at all levels by different people through participation. The talented and the creative individuals will advance the best ideas, while even the humblest may be in a position to make some contributions in their own way. Through such common participation better decisions emerge enabling democratic leadership to flourish.⁸ In such a scheme, education for leadership in a democracy must be revolutionary in its thrust which in turn ushers in a peaceful socio-economic and cultural revolution.

This paper has hopefully made the point that education has a crucial role in providing leadership in different areas of human activity. It has been argued that educational leadership and political leadership and leadership in other areas must be directed towards fostering human change. The basic goal of education for leadership is multi-dimensional *qualitative human change*. Over the years there has been an agonising reappraisal of the very foundations and purposes of education in the context of a modern welfare state. Higher institutions of learning in our country have created a minority of elitist class which has proved unequal to the task of reordering Indian society towards the goal of higher material welfare. Therefore, it is necessary for education to be reoriented towards the development of such values as responsibility, morality, integrity and humanity in the use of knowledge and power for the creation of leadership in a democratic order. This revolutionary transformation in the goal of Indian education for the creation of leadership in a democratic society is presented in the model given in the appendix.

7. It is deplorable that the universities in an underdeveloped country like India have not given sufficient attention to promoting adult education in its numerous dimensions and in contributing their share in liquidating illiteracy among adult men and women. Educationists at the helm of affairs in the universities must recognise the scope of the valuable work which the university faculties can do for the benefit of the adult community. Every university in the country must have a department of continuing education for organising the courses of studies relevant to the needs of adult community. In this connection, see the article by M. S. Mehta, "Adult Education," *The Educational Quarterly*, Vol. X, no. 72, Jan., 1967, pp. 97-100. For a good discussion also see K. G. Saiyidain, *Problems of Educational Reconstruction*, (Bombay, Asia Publishing House, 1962), pp. 211-24.

W. O. Kilpatrick, *Philosophy of Education*, (New York, the MacMillan Company, 1951), pp. 210-11.

APPENDIX
MINISTRY OF EDUCATION, GOVT., OF INDIA



Explanation :

The model assumes that at any given time there are different levels of interaction between the institutions of learning on the one hand and University Grants Commission, State Educational Departments, Union Ministry of Education, Government of India and citizens as members of different pressure groups on the other hand. Through such a process the educational system creates leadership in various facets of human endeavour. In terms of our model, by definition, the interaction in the stationary state will be at a low level and consequently only low level leadership can be created. Like wise in the state of transition the interaction will neither be low nor high and therefore, only medium level leadership is possible, while in the state of turbulence the interaction will be at a high level and the leadership generated will be of a high order. In the state of turbulence the interaction process will be so high between the institutions of learning and the other groups in the society that fundamental changes in education take place creating new patterns of leadership in social, economic, political and other spheres. It is the assumption of the authors that education for leadership in India has reached this particular stage in terms of our model.

OUR LINGUISTIC PROBLEM

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Since the attainment of independence the language problem has assumed serious proportions with strong views held by the protagonists of different viewpoints. Emotion rather than reason is the guiding principle on which the language tangle is judged and analysed by those who have joined this hotly debated issue. It is therefore, not surprising that ugly incidents repeatedly occur generating avoidable stresses and strains on the democratic processes.

Languages have a crucial role to play in moulding the culture pattern of a country like India. It must be recognised that historically multiplicity of languages has enriched our culture making it what it is today. Values like tolerance and non-violence have enabled India to be a major source of assimilation and integration of different cultural and ethnic groups who came in contact with the indigenous population. Education to be creative must be a cementing force that interlinks a multi-lingual and multi-racial population into a homogeneous society. Education in many significant ways is a potent source of communications. The quality of communications in the society depends upon the quality of education, which in turn depends upon the quality of languages, the over-all goals of the society and the value systems that are prevalent at any given time. The authors are aware that it is neither possible nor desirable to take an uncompromising position on the vexed issue of languages. However, this should not detract impartial observers from forcefully arguing for a policy that serves the vital national interest of India. It is only from such a comprehensive and pragmatic criterion can the linguistic muddle be analysed meaningfully. If we analyse the language problem from any other yardstick as against the one we have proposed, the danger of missing the woods for the trees is a distinct possibility.

Unity of languages is one of the dominant considerations in national reconstruction and regeneration. Through the instrumentality of languages the ideas, values, traditions and shared experiences of the people are transmitted and in the process bringing about a feeling of commonality of interests. "Language helps us to explore the physical world, establish contact with fellow human beings and express our thoughts and feelings...

it is supposed to be an instrument for activities outside us.”¹ Social cohesiveness and socio-political and economic integration depend to a large extent on the role of languages as a unifying force. Apart from this, in a tradition-bound country like India, languages, next to religion have a passionate attachment to people acting as powerful instruments to arouse their feelings. Nowhere in the world, except in the Soviet Union is there a bewildering variety of languages with the votaries of each of these languages claiming superiority of their language over others. It is in this context, that the problems of language has raised a hornet's nest. The question of which language should be the national language or what should be the medium of instruction in educational institutions has been vociferously argued in the press and other forums. It is the purpose of this paper to analyse these questions with a view to make policy prescriptions.

The Case for English

The case for a continued extensive use of English in India is very strong. English has more pronounced factors in its favour than any other world language. If India is to play an influential role in the comity of nations, then it is absolutely necessary for it to encourage the development of English along with regional languages and Hindi. A majority of the technologically advanced and dominant nations in the world belong to the category of Western nations where the language of communication is English. Our socio-economic and political intercourse with these nations is of paramount significance for our well-being. India's political and economic institutions derive their inspiration from such institutions in the West. Such intimate contacts will be in jeopardy resulting in incalculable and potentially dangerous consequences for the economic and political stability of India. For instance, whatever the merits or demerits of British rule in India, the fact is that through the English language the British united India into a cohesive whole, which it never was in the earlier period of its history. A well-integrated administration, compact and competent judicial service, unified military administration and a functional educational system were the positive results of British rule that have also determined the course of independent India in a large measure. Our administrative and judicial system, our armed forces and our constitution are all modelled lock stock and barrel on the British and American precedents. At the root of all these factors the most dominating factor in our unification as a single viable polity has been the English language.²

1. Anil Vidyalankar, "Language: Its Beginning and End", *NIE Journal*, Vol. 5, No.5 and 6, May-July, 1971, p. 22.

2. A. R. Wadia, "Language and Education", *The Education Quarterly*, Vol. XVIII, No. 72, January, 1967, p. 32.

English as a world language has very rich literature which has enriched the lives of generations of people the world over. Scientific and technical literature of a high quality reflects the scientific and technological advancement made by the societies in the West. If India is to improve its standard of living to a level comparable to that of the developed countries the continuance of English becomes imperative. The building up of an infra-structure of industrialization presupposes a heavy reliance on Western science and technology which can be best adopted through the extensive learning of English in educational institutions. In such circumstances, any rejection of English is tantamount to breaking down the windows in the quest for fresh air.

English is essential as a link language in India as it is a very effective source of intercommunication between peoples living in different regions. It could also be a very useful library language. However, in the Indian context there is no point in equating English with the study of other foreign languages such as French, German, Russian and so on. In practice, English could be used as a medium of instruction in higher institutions of learning, but its study should not be confused or mixed up with the study of other foreign languages.

English has proved to be an instrument for the creation of a new culture with its new and ever-changing value systems. It has not only helped to modernise our social values and beliefs, but as a common language it has united our culture and religions in a pattern that is well-known for its unity in diversity³.

Education is a major force of change bringing about radical alterations in the social structure. In the case of India, education through the English language has helped immensely in ushering in social reform and political consciousness. The English language has enabled India to have access to advanced knowledge and it has also given Indians their freedom from British imperialism.

However, there is another side to this argument. Despite the many advantages which English obviously has, the fact is that it can by no means continue to occupy a dominant position as it did in an earlier period of India's history. It is argued that the use of English has created a privileged elite who constitute the governing class and who have monopolised

3. For a critical discussion on the place of English in India, see Humayun Kabir, *Education in New India* (London, George Allen and Unwin Ltd, 1961), pp. 116-134. For a thorough discussion of the language problem in its various dimensions also see, M. P. Desai, *Language Study in Indian Education*, (Ahmedabad, Navjivan Publishing House, 1957).

positions of power and influence to serve the interests of its own class. On the other side, are the vast dumb millions living a life of hunger, misery and degradation. The use of the English language has generated a spawning gulf between the governing class who are few in number and the many who are governed.⁴

The Official Language Commission (1957) in no uncertain terms proclaimed that 'it was not possible to envisage English as a mass medium'. It put forth the view that even though English was the language of administration, the judiciary, educational institutions and the public in the country, yet the reality was that the percentage of English knowing Indians was negligible. On this score it was pointed out that English being used by a few people could not become a driving force in the development of national integration. The English language consequently created a psychological barrier by splitting the Indian society into classes.⁵

The Case For Hindi

None among India's fifteen languages, though each is rich in its own way and is spoken by millions, is in a position to claim the pride of place as a lingua franca. Hindi was selected as the official language or federal language after a great deal of controversy and opposition, as it was the language of the majority. About fortytwo percent of Indians speak Hindi, mostly concentrated in the northern states.

The Secondary Education Commission Report (1953) recommended the compulsory teaching of Hindi during the lower secondary or the senior basic stage during the years 11 to 18.⁶ However, it is our view that the report fails to recognise the fact that the study of Hindi for a period of only three years during the lower secondary stage would give the students only rudimentary knowledge of the language. If the study of Hindi is continued for an extended period of many years at the graduate and

4. Professor Edward Shils in an article in the *Encounter* (March, 1962) entitled "Indian students" has made some very pertinent observations on our linguistic troubles. He observes that our students read English slowly and 'cannot speak fluently, write painfully' and they see the 'learning of the world through (their) fragmentary English'. Given this pervasive truth, the need to find a suitable alternative to English in due course of time is exercising the minds of educationists and governmental leaders.

5. Gunvant B. Shah, "National integration and our linguistic problem", *Educational India*, Vol. XXIX, No. 10, April, 1963, p. 340.

6. *Report of the Secondary Education Commission* (Mudaliar Commission), (New Delhi, Ministry of Education, Government of India, 1956), p. 72.

post-graduate levels then only can Hindi achieve the status of an official language used intensively and extensively by the elite and the common people. The University Education Commission (1950) took the view that the medium of instruction at the elementary, secondary and the University stages should be the regional language. But the Commission was aware of the need to adequately equip Hindi with a view to enhance its status as a federal language. Hence, the plan was made for an intensive study of Hindi at all levels of education. Recognising the problems inherent in such a course of action, the Commission also recommended that the Universities could have the option to use the federal language as medium of instruction either for some subjects or for all.⁷

The protagonists of Hindi put forth their case persuasively by emphasising its role as a catalytic agent of national solidarity and cohesion. When the need for having one common language throughout the country is accepted by one and all, as such Hindi which has been accorded the status of an official language must be studied compulsorily. They further argue that Hindi has the potential of serving as a most creative force for the enrichment of the composite culture of India. From the numerical perspective, it ranks third in the world next to Chinese and English only. For all these reasons, it is held that Hindi is in a unique position to be the sole language of the masses.

But it must be noted that the simmering cauldron of Hindi language has reached a boiling point because the people of the southern states are not easily persuaded to learn Hindi. Moreover, there are few great literary works in Hindi which compare favourably with the world famous works in English. There is a general dearth of advanced and original works in Hindi in such diverse and technical fields like engineering, science, commerce, medicine, sociology, mathematics, economics etc. To add to these inadequacies, a variety of dialects and scripts in the Hindi language cause further confusion. Historically speaking, Hindi is not in a position to take the place of a link language. The northern parts of India were subject to frequent invasions, but, on the other hand, the south was relatively free from such alien intrusions. Consequently, until the coming of the British there was no emotional and cultural integration between the people of the north and the south, and there was no common language to link the south and the north. For these weighty reasons, for the people of the south Hindi constitutes an alien language in which they cannot hope to achieve the same proficiency as their brethren in the north. In this context, it is not surprising that resistance and sometimes violent protest against Hindi imperialism in south India are an eloquent testimony of the passion generated among a

7. *The Report of the University Education Commission*, (1950), (Radhakrishnan Commission), (New Delhi, Government of India Publication, 1950), pp. 321-23.

major segment of the population. Any decision to impose Hindi by force on non-Hindi people is bound to undermine emotional and national integration among the people of India.⁸

The Case for Regional languages

The various official commissions appointed by the Government of India from time to time have argued in favour of regional languages as the medium of instruction at various levels of education. Contemporarily, pedagogical opinion is virtually unanimous in recommending the use of the regional language or mother tongue for educating students through various stages of education. Language is a dynamic instrument of knowledge and it is pointed out that the mother tongue can be a powerful instrument of knowledge for a pupil. A speedy switch-over to regional languages will go a long way in fostering the rapid growth of these languages.

From the perspective of continuity it is recognised that students learning through the medium of regional languages in schools are abruptly forced to switch over to the foreign medium of English when they go to colleges and universities which is illogical and irrational and likely to produce disastrous results. This is best exemplified by the poor English of most students who are studying in this foreign medium in the colleges and universities. To avoid wastage of limited resources and to harness the talent of younger generation, from a pragmatic perspective the argument can be advanced that regional languages should also be made the medium of instruction at the collegiate stage also.

From a more weightier consideration, it must be recognised that the medium selected must be such that it enables students to get knowledge with the greatest ease, to think and express with a high degree of clarity and precision. For these purposes, the mother tongue which in most cases is the regional language becomes the most suitable medium of instruction⁹. What is happening now is that students learning through a foreign medium have a tendency to cram instead of an attempt at a thorough understanding of the subjects.

Another equally powerful argument that has been advanced in favour of the regional languages is that teachers in the universities will be

8. S. K. De, "Solution of linguistic problem", *Educational India*, Vol. XXXX, No. 3, March, 1965, p. 505.

9. Irawati Karve, "Our language problem" *The Education Quarterly*, Vol. XV, No. 60, p. 205.

in a position to make a contribution to the advancement of science and technology, only if there is a continuous and meaningful interaction through the regional languages with the masses at large. This fact is a profound truth which no educationist or a statesman can ignore. Since many years the teachers, who constitute the intellectual elite in the society, have functioned with an ivory tower mentality as they were averse to communicating with the masses in their regional languages or the mother tongue. This sorry state of affairs must be rectified without any further delay by making advanced knowledge available to the masses in a medium in which they can easily understand.¹⁰

On the other hand, it must be recognised that the introduction of the regional languages as the medium of instruction bristles with complications. It would not be wrong to assert that the government in the past has not articulated its policy in respect of the medium of education at various stages in an unambiguous manner. Political considerations rather than educational priorities have normally determined the official thinking in this regard, which is often indecisive, vague and confusing. The same story is repeated in specifying the medium of selection for admission to professional courses and employment. Many educationists fear that the mobility of students and teachers from one region to another would stop altogether if regional languages were adopted as the medium of instruction. In a multilingual and multi-racial situation this argument must be given due consideration. Frequent outbursts of violence on the issues of boundary disputes and river water disputes are a clear manifestation of parochialism and regional chauvinism. Our unity is fragile and when this is the case, regional languages may undermine national integration and national unity. An additional complication that would arise if we opt for the regional languages as the medium of instruction pertains to the heavy burden that would be placed on the administrative machinery. Our administrative machinery for many years has used English and Hindi extensively for interstate and centre-state communication. If the regional languages were adopted as the medium it would lead to confusion and chaos. The administrative machinery would break down. There is also the question of assuring adequate number of trained teachers to teach in regional languages. Even if the teachers are trained to teach in regional languages, the fact is that there are not sufficient number of quality books written in regional languages to cater to the needs of students. It is therefore, not surprising that teachers are reluctant to shift to the regional languages for instruction.¹¹

10. M. Venkatarangaiya, "The medium of instruction," *Educational India*, Vol. 34, No.3, Sept., 1967, p. 83.

11. N. K. Jangira, "Introduction of regional languages as the media of instruction—Tasks ahead", *Quest in Education*, Vol. VI, No. 3, July, 1969, P. 143.

Whether there is substance to these fears will have to be examined in the light of other considerations. The Emotional Integration Committee examined the argument that the change-over to regional languages would result in linguistic fanaticism and exclusiveness leading to the balkanization of the country. The committee strongly felt that the use of regional languages as media of education from the school to the university stages was of imperative necessity for national integration. In the type of situation that we are placed today, neither English nor Hindi as the sole medium at all stages of education will be acceptable to all people. In such circumstances, the only alternative left is to use all regional languages as the medium of instruction in the respective states. Such a step will meet the aspirations of all the people. The people of each state will be proud of their linguistic uniqueness enabling them to flourish through their creativity by releasing positive and forceful factors for the preservation and consolidation of national unity.¹²

The protagonists of the regional languages realise the necessity of a link language as the channel of communication between educated people in various parts of the country and as between our country and other advanced countries of the world. Obviously, they are prepared to provide for a link language at the school and collegiate stage. This second language would preferably be English. English is in an advantageous position and it can become a link language as it can serve the dual purpose of internal and international communications. However, it must be realised that the introduction of regional languages cannot be implemented immediately because of formidable obstacles. A reasonable time frame has to be fixed for such an eventual change over.

The Kothari Commission broadly followed the pattern of the three language formula enunciated by the Central Advisory Board of Education in 1956. However, the commission has recommended a modified three language formula which seeks to remove some of the lacunae in the original three language formula.¹³ The original three language formula

12. For a forceful plea in favour of regional languages as the medium of instruction see Shriman Narayan, *On Education* (Delhi, Atma Ram and Sons), pp. 36-57.

13. The modified three language formula is as follows:

- (a) The mother tongue or the regional language.
- (b) The official language of the Union or the associate official language of the Union so long as it exists, and
- (c) A modern Indian or foreign language not covered under (1) and (2) and other than that used as the medium of instruction. See *Report of the Education Commission* (Kothari Commission) (1964-66), (New-Delhi, Government of India, 1966), Chapter VII.

has failed to solve the problem of medium of instruction and the Kothari Commission will also not be successful. The fact is that the recommendations of the Kothari Commission on the medium of instruction have received mixed reaction, some highly critical and some highly appreciative. No acceptable solution to the vexed problem of language appears possible in the near future. Any solution to this problem will have to be based on considerations of utility, facility, desirability and equality. Such broad based criteria means that no language would be imposed or any partisan favour would be shown to anyone. The principle of equal burden for all must be observed with a view to evolve a national consensus on the language problem. All this clearly implies that the *status quo* should continue with Hindi and English remaining as official and link languages until such time as the people of the south are prepared to accept Hindi as the sole link and the official language. In such a scheme of things, a three language formula has a definite place wherein the medium of instruction would be in the mother tongue or the regional language. It must be realised that national integrity cannot be maintained and promoted by compulsion or coercion. Languages can be powerful instruments for forward movement as they are a sort of 'mental railway' are 'causeway of communication' and they are also a communicating medium of human values and culture. From this broader consideration, we should hasten slowly on the complex issue of language. A dispassionate and a cool analysis of the language tangle will enable us to remove it from political compulsions and narrow regional considerations. The language problem must be viewed from the national perspective.

HOW ARE MATHEMATICAL PROPOSITIONS NECESSARY ?

L. C. Mullatti

How are ordinary propositions like "John is the fastest runner on the team" true? We normally have no difficulty in answering this question: we say that they are true because they conform to our experience or correspond to the facts of the world. The proposition mentioned above is true if it is, as a matter of fact, the case that John is the fastest runner on the team. However, we normally hesitate to give a similar answer regarding the propositions of mathematics, such as " $7 + 5 = 12$ ". For, what is the fact or experience which corresponds to the proposition " $7 + 5 = 12$ " in the sense in which the fact (or experience) that John is the fastest runner on the team corresponds to the proposition "John is the fastest runner on the team"? If there were such a fact, we could easily imagine it to be different. And if it were different, would we be prepared, as we would be in the case of the proposition that John is the fastest runner on the team, to say that the proposition " $7 + 5 = 12$ " would be false? We do not seem to be prepared to say so. Mathematical propositions like " $7 + 5 = 12$ ", therefore, do not seem to be true in the same way in which empirical proposition like "John is the fastest runner on the team" are true. How, then, are they true? Or, which amounts to the same thing, how are they necessary? (The same questions, of course, arise with regard to all necessary propositions of which mathematical propositions are but a sub-class. But we are not directly concerned here with other kinds of necessary propositions).

One of the earliest, and one of the most well-known, answers to our question was given by Plato. Plato said that mathematical objects like numbers, lines, points, triangles etc., exist eternally as Forms or Ideas in a world of their own different from our spatio-temporal world. These Ideas or Archetypes are accessible to the intellect alone, and are responsible for the necessity of mathematical truths. The proposition " $7 + 5 = 12$ ", for example, is true because it corresponds to (or as Plato said, 'participates in') the structure or interrelationships of the eternal Ideas, 7, 5, =, and 12. Since this proposition mirrors an eternal and changeless fact, it is itself said to be an 'eternal truth.' In other words, Plato restored (though, perhaps, he did not realize it,) the correspondence between facts and propositions by devising a special kind of fact not accessible to the senses as ordinary facts are, but only to reason. Plato's position is, therefore, often described as both realism and rationalism.

The defects of Plato's doctrine of Ideas, in general, are wellknown, and need not be repeated here in detail. As far as its application to mathematics

is concerned, its difficulties, and the difficulties of any other like theory, have been amply brought out by people like Quine¹ and Russell. In brief, the principal difficulty lies in attaching sense to this 'bloated' universe of Ideas. The only intelligible sense of 'existence', it has been argued, is existence in time and/or space. An account, therefore, of mathematical truth in terms of such a mataphysical ontology fails to be adequate. Other thinkers, therefore, who share Plato's faith in the power of reason as the main, if not the exclusive, source of knowledge, have tried to avoid his ontology, and to give a different, though yet rationalistic, account of mathematical truth. Descartes, for example, held that 'eternal truths' are true because they are self-evident, or as he put it, 'clear and distinct'. We have a faculty called Intuition which immediately apprehends the truth of mathematical propositions, and this faculty is infallible. True, Descartes also said, in contrast with Leibniz for whom eternal truths hold of all possible worlds and do so independently of God's will, that such truths are subject to God's will, and that God could alter them if he so desired. But God has been infinitely wise in his creation, and since he is also good, he does not change things arbitrarily. Given, therefore, the eternal existence of such a God, the 'eternal truths' are, for all practical purposes, eternal and necessary. And epistemologically, their necessity is traced not to God, but to their self-evidence.

Even such modified versions of rationalism which ascribe the necessity of mathematical propositions to their self-evidence are seriously inadequate. For, as the history of thought has only too well shown, the so-called faculty of Intuition, far from being infallible, has turned out to be very fallible. It has tended to be identified with a psychological feeling of self-evidence. (And if it is not this psychological feeling, what else it is nobody has ever been able to say.) It has, in other words, turned out to be subjective, and what is felt as self-evident may vary with persons and places. Moreover, many mathematical truths are so hard to establish, that even to the professional mathematician, they are any thing but self-evident. And many others, for example, in abstract set theory and topology, positively go against our deep-rooted intuitions, and yet they are generally considered to be necessarily true.

We are thus back at our problem, "How are mathematical propositions necessary?" We have in Mill yet another answer to this problem. Mill said that mathematical propositions are in fact inductive generalizations, despite their appearance to the contrary. Like all other inductive generalizations, they are, in principle, confirmable or infirmable by experience. They appear different from other inductive generalizations only in that the confirming evidence in their favour has been overwhelming and prolonged. They are tested over a very long period in human history, and not a single contrary instance has turned up. If, however, a contrary instance does turn up in future,

they would be falsified in the same way in which ordinary inductive generalizations would be. The difference, then, between mathematical propositions and inductive hypotheses is one of degree, not of kind. The former appear to be necessarily and universally true, and so different in kind, only because of the extremely large number of confirming instances.

A little reflection will show that this account of mathematical necessity will not do either. As Kant pointed out, even if all knowledge begins with experience (it does, for Kant), it does not follow that it all arises out of experience. Certainly, mathematical propositions do not arise out of experience in the way in which ordinary empirical propositions do. Suppose that on a given occasion we counted seven apples and then five apples and then counted the whole lot and found only eleven. Would we take this as a disconfirming evidence for the proposition " $7 + 5 = 12$ "? Obviously not. We would rather say that we miscounted or that somebody removed one apple without our knowledge etc. Or again, suppose that we measured the internal angles of a triangle and found their sum not equal to two right angles. We would not say that, therefore, we have falsified the geometrical proposition that the sum of the internal angles of a triangle equals two right angles. We would rather say that we measured wrongly or that the triangle was not Euclidean etc. We thus always preserve the validity of mathematical propositions by adopting one kind of hypothesis or another to explain the apparent counter-instances.

To put it slightly differently, on the basis of ordinary empirical hypotheses, it is possible to make predictions. These predictions, if they came true, would, at least in principle, confirm the hypothesis in question; and if they did not come true, they would confute the hypothesis. But it is not possible to make such predictions on the basis of mathematical propositions alone. Or, if you please, whatever predictions we choose to make have not the least tendency to upset or establish the mathematical propositions in question. This is so because mathematical propositions are, as Gasking puts it,² incorrigible, while empirical propositions are corrigible. The latter are withdrawn under certain circumstances; the former, never.

II

Considerations such as the above show that Mill was wrong in his account of mathematical necessity. Contemporary empiricists, therefore, though in general sympathy with Mill's empiricism, steer clear from his views on mathematical necessity, and offer an alternative account of mathematical necessity which may be called Conventionalism. According to Conventionalism, mathematical propositions are necessary because they are

analytic. We have, therefore, to understand the notion of analyticity before we understand that of mathematical necessity. According to Kant who first used the word 'analytic', a proposition is analytic "when the predicate B belongs to the subject A as something which is (covertly) contained in this concept A... Analytic judgments... are, therefore, those in which the connection of the predicate with the subject is thought through identity."³ If we ignore the fact that Kant mixes up two distinct criteria of analyticity—one, psychological (that of containment) and the other, logical (that of being based on the principle of Identity—and also the fact that he assumes every proposition to be of the subject–predicate form,⁴ it is easy to interpret Kant's sense of analyticity as that of the Conventionalist (though in other respects Kant and the Conventionalist are as wide apart in their views as any two philosophers can be). For the Conventionalist, a proposition is "analytic if it is true solely in virtue of the meaning of its constituent symbols".⁵ Or in Hempel's words, "The statement that $3+2=5$, then, is true for similar reasons as, say, the assertion that no sexagenarian is 45 years of age. Both are true simply by virtue of definitions or similar stipulations which determine the meaning of the key terms involved."⁶ As such, analytic propositions do not give us any information about the world, except it be in the sense that "they call attention to linguistic usages."⁷ Being vacuous they are neither confirmed nor disconfirmed by what happens in the world. They are true *a priori* and are compatible with any state of affairs. Because the predicate of an analytic proposition does not add anything new, it may be said to be contained in the subject (and here the Conventionalist comes closest to Kant). For the same reason, an analytic proposition is also called a tautology by some (though this term is reserved by others for more technical and restricted use) to suggest that it is vacuous.

This view of analyticity is called Conventionalism, because it makes the truth of a proposition dependent on the convention about what meanings we decide to attach to the terms of the proposition in question. Analytic propositions, according to this view, "simply record our determination to use symbols in a certain fashion."⁸ Hence, they cannot be denied without self-contradiction, i. e., "without infringing the conventions which are presupposed by our very denial."⁹

Analytic propositions, then, are necessary because of the meanings of the terms contained in them, and mathematical propositions, being analytic, are necessary for the same reason. But if mathematical propositions are analytic, they are tautologous and can give us no new knowledge. What happens, then, to the sense of novelty and discovery in mathematics? As Poincare said, would not all the numerous volumes on mathematics

amount to a gigantic tautology that A is A ?¹⁰ The Conventionalist's answer is that the sense of discovery depends on the limitations of the human intellect. A being with an infinite intellect would see everything his definition implied, and could never learn anything new from his mathematical deductions. But human beings have only a finite intellect, and can see only a few of the consequences of the definitions. The rest of the consequences are seen with great effort, and some only by geniuses for the first time. This constitutes discovery.¹¹

We have said that, according to the Conventionalist, mathematical propositions are true because of the meanings of the terms contained in them. However, on closer examination, this does not seem to be, strictly speaking, true. For, in any rigorous development of mathematical theory as for instance in Peano's system, individual mathematical propositions are derived ultimately from a set of axioms, which are themselves unproved within the theory and which contain certain primitive terms, that is, terms which are themselves undefined within the theory, but in terms of which all the other terms of the theory are definable. And in such a derivation, the primitives of the theory, despite their obvious importance, are totally ignored. Derivation is a formal affair, and has nothing to do with the content either of the statements derived or of the statements from which they are derived. The primitives constitute the content of the axioms, and in so far as they are ignored, the axioms are *virtually* treated as uninterpreted. And that means that all the statements derived from them (along with the relevant definitions) are also treated as uninterpreted.¹² In so far as the latter are so treated, there is no basis for saying that they are either true or false, and *a fortiori* no basis for saying that they are true because of the meanings of their terms. All that can be said about them is that they are true if the relevant axioms are true (given, of course, that the derivation in question is correct). In explaining the necessity of mathematical propositions, therefore, it is not enough to show that they are derivable from a certain set of axioms (along with suitable definitions). It is also necessary to show that the axioms are true. Of course, the primitives of the axioms in any deductive development of mathematics, such as Peano's axiomatization, are assigned their customary meanings, and on that basis the axioms are assumed to be true. However, a statement does not become true just because it is assumed to be true. The customary meanings that are at the back of such an assumption are, despite their familiarity, often vague and imprecise, and the assumption resting on them cannot be taken as fool-proof. It is, therefore, necessary to have a theoretically more adequate basis for the truth of the axioms than mere (psychological) feeling of self-evidence or intuition or arbitrary decision

(associated with the customary meanings), if the Conventionalist's claim that mathematical propositions are analytic is to be justifiable. In other words, it is necessary to provide a rigorous and precise analysis of the customary meanings, and then to show that under such a precisely formulated interpretation, all the axioms come out true. Can this be done ?

The Conventionalist maintains that this can indeed be done. He realises that any attempt to analyse or define mathematical concepts in terms of other mathematical concepts would either be circular or lead to infinite regress, and would thus be doomed to failure. He, therefore, goes beyond mathematics in order to define the mathematical primitives. For instance, he rigorously defines all the three primitives of Peano—'zero', 'successor', and—'number' in purely logical (especially set-theoretic) terms. Since all the other terms of Peano's system are definable in terms of these primitives either directly or indirectly through already defined terms, this means that these other terms also are ultimately definable in purely logical terms. What is more important, all the five axioms of Peano come out true under these rigorous definitions of the primitives, thus guaranteeing the truth of all the statements derived from them¹³. It is to be noted that these rigorous definitions are not a replacement but a refinement of the customary meanings of the primitives. To say, therefore, that the axioms (and the theorems) come out true under them is also to say that they come out true under the customary meanings.

The Conventionalist thus tries to show that he can justifiably claim that a mathematical proposition is, in the ultimate analysis, true because of the meanings of its terms, no matter whether it is an axiom or a theorem. If it is an axiom, the rigorous logical definitions directly render it true. If it is a theorem, its truth is ensured jointly by the truth of the axioms and the soundness of its derivation.

In taking this position, the Conventionalist is rejecting the view, sometimes held, that the axioms of a system themselves provide 'implicit definitions' of the primitives of that system, and that, therefore, there is no need for any further definitions of them. His reason for the rejection is that "...while the postulates do limit in a specific sense the meanings that can possibly be ascribed to the primitives, any self-consistent postulate system admits, nevertheless, many different interpretations of the primitive terms... whereas a set of definitions in the strict sense of the word, determines the meanings of the definienda in a unique fashion".¹⁴ For example, there are infinitely many (though denumerable) interpretations which make Peano's axioms, and hence all the theorems derived from them, true. The customary interpretation is just one among them. But there is nothing in Peano's axioms taken by themselves which binds us to the customary interpretation (under which all the arithmetical concepts have their normal

meanings). In other words, Peano's axioms (or any others) do not implicitly define the primitives they contain so as to give them their usual meaning. We, therefore, need to know independently if the axioms are true under the customary interpretation of the primitives. That is, we have to define the undefined primitive terms before we can speak of the mathematical propositions (i.e. the axioms and their theorems) as being true in virtue of the meanings of their terms. Can we do this? It is impossible to define some mathematical concepts without presupposing other mathematical concepts. If, therefore, we tried to define the primitive concepts of a mathematical system, we would be moving in a circle and would fail to explain how mathematical propositions are necessary. The Conventionalist solves this difficulty by going beyond mathematics in order to define the mathematical primitives. In other words, he defines the mathematical primitives in terms of purely logical concepts.¹⁵ The primitives of Peano's system, for example, were defined by Russell and Whitehead in terms of the properties of classes (and these in terms of propositional functions) and certain logical constants. By means of such definitions, they were able not only to assign to the primitives their customary arithmetical meaning, but also to show that all the axioms and their theorems turn out to be true.

The Conventionalist is, thus, able to stick to his original stand that mathematical propositions are true solely because of the meanings of their terms. So long as the primitives are undefined, the definition of any term in any mathematical proposition within the system remains inadequate. But once they are defined, the definitions of the terms in individual mathematical propositions are rendered adequate, and there is no difficulty for the Conventionalist in understanding the analyticity of mathematical propositions. But we must note that in taking this course for explaining mathematical necessity, the Conventionalist is committed to logicism the thesis that mathematics can be completely reduced to logic. The *Principia* of Russell and Whitehead is a monumental exposition of this thesis.

It should be noted that there are some exceptions to the Conventionalist position outlined above. For instance, Conventionalists like Ayer have maintained that "every logical proposition is valid in its own right. Its validity does not depend on its being... deduced from certain propositions which are taken as self-evident... it is possible to conceive of a symbolism in which every analytic proposition could be seen to be analytic in virtue of its form alone.... For even if... it is not possible to reduce mathematical notions to purely logical notions, it will still remain true that the propositions of mathematics are analytic propositions."¹⁶ Such people, I believe, are able to affirm the analyticity of any mathematical proposition taken in isolation (from the system to which it belongs) only because they tend to assume, perhaps unknowingly, that the relevant axioms are self-evident, and self-evidence, of

course, implies an interpretation of the primitives in terms of their ordinary meanings. Such an assumption, however, is unwarranted, but once it is granted it follows obviously that every mathematical proposition is analytic. But that is only because it would be a theorem of those axioms. The meaningfulness, let alone the truth, of an individual mathematical proposition depends on the system to which it belongs. We have, therefore, to conclude that Ayer is wrong in thinking that every mathematical proposition is true in its own right.

III

The Conventionalist's view, then, is that every mathematical proposition is analytic (and hence necessary), and that its truth depends ultimately on the definitions of the primitives of the axioms. The Conventionalist has, thus, saved the analyticity of mathematical propositions by making the axioms themselves analytic. (This does not mean, I think, that all axioms (of any system whatever) must be analytic, though many people (including Nagel and Newman¹⁷ for example) think so. I do not see why there cannot be a deductive system with contingent axioms. The Conventionalist's claim is confined to mathematics, where, of course, no axiom can be contingent). But is the Conventionalist right? The answer has to be in the negative because there are many serious objections to his position.

For one thing, if the axioms are true because of the definitions of the primitives they contain in terms of purely logical concepts, what about these logical concepts themselves? The Conventionalist (as a meta-mathematician) has passed on his burden to the logician, and thinks that in doing so he has solved his problem about mathematical necessity. But in point of fact, he has not solved the problem, because in so far as he erases the distinction between mathematics and logic, the burden which he has passed on to the logician still remains his own. Now, the process of defining one concept in terms of others must come to an end somewhere. These logical concepts in terms of which the primitives of a mathematical proposition are defined must, therefore, be themselves undefined. Are, then, the propositions containing them still analytic? Because of his reduction of mathematics to logic, the Conventionalist seems to be committed to saying that they are. But then why go beyond mathematics? Why not regard the mathematical axioms as they are as analytic on the basis of customary meanings of their primitives? The Conventionalist has no answer to these questions.

Secondly, as Ewing¹⁸ and Broad¹⁹ have pointed out, if necessary propositions (of which mathematical propositions are but a sub-class)

were dependent on how people use words, they would be just a special class of empirical propositions, and their truth or falsity would have to be decided by finding out if people do in fact use words in a particular fashion. In other words, necessary propositions would be confirmable or infirmable by experience contrary to the Conventionalist's own thesis that they are true *a priori*.

Besides, linguistic usage may differ from language to language. If mathematical propositions were the result of linguistic usage, they ought also to differ from language to language. But this is absurd. Mathematical propositions are true irrespective of what language is used to express them. It might be suggested that not all linguistic usage differs from language to language, and that there are some very general and basic rules common to all languages which constitute, as it were, a universal grammar for all languages. Mathematical propositions are based on linguistic usages represented by such rules. But the difficulty with this suggestion is, How do we know that there is a core of basic rules common to all languages? Either by an exhaustive enumeration of all languages, or by generalization from known languages. But the former alternative is impossible since there is no limit to actual or possible languages, and the latter alternative makes our knowledge empirical, and therefore, falsifiable in the light of later evidence. Everything that rests on this falsifiable knowledge itself becomes falsifiable.

These objections apply equally irrespective of whether the words whose meaning is in question are content-words or formal words. The distinction between content-words and formal words is at the basis of the distinction between analytic and formally analytic propositions. A proposition is said to be formally analytic if it is true in virtue of its logical words alone. But a proposition could be analytic without being formally analytic since the words on whose meaning its truth depends need not be formal. For example, " $((P \rightarrow Q) \& P) \rightarrow Q$ " is formally analytic, since its truth is supposed to depend only on the meanings of ' \rightarrow ' ('If...then...') and ' $\&$ ' ('and'); while the proposition "If John is a bachelor then John is unmarried" is only analytic, since it is true also because of the meanings of the content-words 'bachelor' and 'unmarried' in addition to the formal words 'If...then...'. Whether the words used are formal words or content-words, the truth of the propositions containing them equally depends, according to the Conventionalist, on what conventions we adopt regarding their meanings. Hence the above criticisms equally apply to both.

The Conventionalists sometimes say that the concepts that the formal words signify are not an essential ingredient of language, and that they

could be explained away in terms of a primitive, prelogical language which does not contain them.²⁰ Negation, for example, is explained in terms of limitation and incompatibility.²¹ But the assumption that there could be a primitive language which does not contain any of the concepts signified by formal words, and which consists only of the rules for the use of formal words and is not governed by the laws of logic is so untenable that we may ignore it altogether. We may only point out that a language which is not governed by logic cannot be a language at all simply because it fails of its function, namely, that of communication. We cannot get behind logic to explain logic.

Or, we may state this difficulty in a different way: To say that formally analytic propositions rest on linguistic rules governing the use of formal words is to say "If we accept those rules, we *must* accept these propositions." But this latter is itself intended to be a formal proposition and has to depend on further linguistic rules, and so on and on backwards. However far back we go, we are still left with a formal proposition, and we cannot reach anything more ultimate in terms of which to explain it.²²

Because of all these difficulties, the Conventionalist's thesis that mathematical propositions are necessary because they are analytic is unacceptable.* The Conventionalist is led to think that mathematical propositions are analytic because of a basic confusion about the use of language, or more specifically, a confusion between a proposition and a sentence.²³ A proposition, though expressed by a sentence, is not itself a sentence. This is obvious from the fact that different sentences may express the same proposition, and the same sentence may express different propositions in different contexts. The sentence "If John is a bachelor, he is unmarried" like any other sentence, consists of words, but expresses a proposition which is not about words or their meanings. But the sentence "'Bachelor' means the same as 'an unmarried man'" expresses a proposition which is about the word 'bachelor'. The Conventionalist mistakenly thinks that the first sentence also expressese a praposition about words and that, therefore, that proposition must be true because of the meanings of its words. The fact is that the meaning or definition of the word 'bachelor' has little to do with the truth or falsity of the propositon expressed by the first sentence. Only the sentence expresses the proposition it does because the word 'bachelor' means what it does. If the word meant something different, the sentence would, of course, express a different porposition. But that is not to say

* Faced with difficulties such as these, some Conventionalists have indeed modified their view and held that to say that analytic propositions depend on the meanings of their terms is not to say that they are empirical. See Ayer, *ibid.* p. 16. (See note 4 at the end of this article).

that its meaning determines the truth of the proposition expressed by the sentence. "To understand the meaning of common words is a necessary precondition for grasping what propositions ordinary sentences are used to assert; but the meaning of the words in no way explains why the propositions asserted are true or false..."²⁴.

We have pointed out above that, on the Conventionalist's thesis, mathematics turns out to be contingent and arbitrary. How arbitrary it becomes can be shown by comparing it with a game. A game like chess, for example, is governed by a set of rules which we follow in the moves we make of the various chessmen. It is obvious that we can change these rules and call the resulting game, say, Tess. Similarly, if mathematics depends on a set of rules (or conventions), there should be no difficulty in changing them and having a different mathematics in which $7 + 5 = 18$. Such a change would not be a change merely in the labels of numbers; the numbers and their interrelations themselves would change, just as the moves we would make in Tess would be different from the moves we make in chess. Otherwise, we would not have changed anything; mathematical truths would be left intact. Only, they would be expressed in different linguistic expressions, as happens when the same proposition " $7 + 5 = 12$ " is expressed in different languages. But it is a fact that we do not have the freedom to change mathematical truths in this way. The Conventionalist seems to think that to say that mathematical propositions are analytic is also to say that they are true because of the law of contradiction alone. He is right only if he means that the law of contradiction (and in fact other logical laws as well) holds given a system of conventions. But he will not have accounted for the necessity of the law of contradiction itself.

IV

If the Conventionalist errs on one extreme, the Platonist errs on the other extreme. That is, while the former makes mathematics arbitrary, the latter makes it eternal. Though diametrically opposed to each other, both yet share a common defect; they both sunder the vital connection between life and mathematics. Platonism does this by exalting mathematics out of all human concern. Conventionalism does it by trivializing or externalizing the connection. It is only through restoring the essential connection between life and mathematics, and thus remedying the one-sidedness of both Platonism and Conventionalism, that we can hope to give an adequate account of mathematical necessity.

A mathematical [proposition, we may say, is necessary either by itself or because it ultimately follows necessarily by rules of inference from another which is necessary by itself. In the former case, a mathematical proposition

is an axiom, and in the latter case it is the conclusion of an inference from an axiom. Mathematical necessity, thus, resolves itself into two components, namely, the necessity of axioms and the necessity of a rule of inference (i. e. of how from a given premiss its conclusion follows). Let us call the former axiomatic necessity and the latter inferential necessity. We propose to explain mathematical necessity in general by explaining its two components separately.

The distinction between axiomatic necessity and inferential necessity will immediately invite objections. It will be said, for example, that there can be alternative axiomatizations of the same theorems, and that given alternative deductive systems with the same set of theorems one and the same proposition may appear as an axiom in one system and as a rule of inference in another, so that the distinction between axiomatic necessity and inferential necessity seems to get blurred. And we have no criteria to choose between two deductive systems with the same set of theorems (except, of course, those of a purely extraneous character e. g., neatness, economy, and so forth).

These objections, it must be admitted, are indeed true. Our justification for making the distinction despite them is, firstly, that historically it is made; secondly, that the distinction holds within any given system. In any case as will presently be seen, our account of axiomatic necessity and inferential necessity will essentially be the same, so that it really does not matter for us whether we draw the distinction or not, even though it is convenient to do so.

Let us take first inferential necessity. The key-concept in understanding the notion of inferential necessity is that of following a rule. Suppose a person A is asked to construct a series of cardinal numbers by adding 2, and suppose he writes 2,4,6,...1000, and then goes on to add 1004, 1008, etc.²⁶ We say, of course, that A is wrong in going on adding 4 after 1000. But why is he wrong ? Is it because he has not followed the rule "Add 2" correctly ? Both the Platonist and the Conventionalist* would say so. For both, given that A has understood the rule correctly, he is logically

* Unless he is what Dummett calls a 'full-blooded conventionalist' who holds that we are free not only in accepting the initial rules of mathematical proof, but also, even after accepting them, in accepting or rejecting each step in the proof. "We are making a new decision and not merely making explicit a decision we had already made implicitly". (Michael Dummett, "Wittgenstein's Philosophy of Mathematics", *Philosophical Review* 1959, reprinted in Pitcher, *ibid.* p. 427.

Dummett takes Wittgenstein to be a full-blooded Conventionalist. That he is wrong is sufficiently shown by Stroud (n26), Robinson (n17), and H. N. Castaneda, ("Arithmetic and Reality", *Australasian Journal of Philosophy*, August 1959, reprinted in Paul Benacerraf and Hilary Putnam (eds.), *Philosophy of Mathematics*, New Jersey: Prentice-Hall Inc. 1964).

constrained to add only 2 all along the series. Each step is guaranteed or determined in advance. The hardness of the logical 'must' is absolute for both. But since both the Platonist and the Conventionalist have become suspect in our eyes, we have to look elsewhere for an answer to our question. In order to decide whether A is wrong because he has not followed the rule correctly, we must first be able to say what it is to follow a rule correctly or, in other words, what determines which move is correct at a given point. What determines which move is correct cannot be what the person giving the rule has in mind while giving the rule; otherwise the rule would be arbitrary and we would be back in the Conventionalist's position. In any case, such a person could not have "quickly thought of each particular step which he wanted A to take, and even if he did, that would not show that 'meaning 1002, 1004...' meant 'thinking of 1002, 1004...'"²⁷ The fact is that what a rule means, or what determines whether it is followed correctly, is shown not by what the person giving the rule intends, "but in the ways we use it, in what we do in following it, in the ways we are taught to use it, and so on";²⁸ or in Wittgenstein's words, in our 'ways of life' or 'forms of life'. And there is in these ways of life nothing to show that, if A had learnt to construct mathematical series in the same way as we did but began deviating from us after a certain point in a given series, he is stupid or that he misunderstood the rule. It is possible for one to accept the rule initially, perfectly understand it, and yet deviate from us. This is the point of Wittgenstein's remark, "Somebody may reply like a rational person and yet not be playing our game."²⁹ This may, at first, sound odd, but as we will presently see, it is not odd after all. Because it is in principle possible for A to deviate from us, we may not be able to convert him to our ways of constructing the series. A might insist that his way of constructing the series is what the rule means, and he may be convinced that he is making the same move after 1000 as before 1000. He would be like the person who naturally reacted to the gesture of pointing with the hand by looking in the opposite direction.³⁰ Any attempt to convert him to our way only confirms him in his own.

Or, to take another example, imagine a community of wood-sellers who sold wood not by its dimensions but the area covered by the pile irrespective of its height.³¹ We hesitate to call their wood-selling activity as selling wood the wrong way. For, there is no way of deciding how it is wrong, and no way of correcting it even if we believed it was wrong. It is not just that these people meant by the expressions 'more wood' and 'less wood' something different from what we mean by them. That is, it is not just that they adopted a different set of linguistic conventions. It is rather

that their whole form of life is different. There is nothing contradictory in the supposition that there could be a different 'form' of life than our own. Because the form of life of these wood-sellers is different, their logic is different, and there is no possibility of communication between us and them. Their wood-selling activity would be right for them just as ours is to us, and that is the end of the matter. We cannot describe their activity as wrong. Their concepts would not be translatable into ours, and would not be intelligible to us. But this does not mean that the formation of those concepts, and the existence of those wood-sellers is unintelligible.³² The existence of any entity (such as ourselves) and the occurrence of any event (such as the formation of our concepts) is a contingent matter, and could have been different.

That they could have been different is not, again, to say that they are genuine alternatives to *us*, and that *we* are free to *accept or reject* them. We have not freely chosen our own way of life. We just happen to be born into it, individually and collectively and we grow in it. Just as we were not free to accept it, we are not free to reject it either any more than we are free, as Aristotle said, to be vegetables instead of men. The forms of life we have just happen to be facts over which men have no control. That is why Wittgenstein calls them 'the facts of the natural history of man'³³ or 'anthropological phenomena',³⁴ thereby emphasizing the fact that, though contingent, they are yet somehow constitutive of mankind. That is, their obtaining is responsible for human nature being what it is.

The point of all this is to bring out that what a rule is or whether it is followed correctly is shown by the forms of our life. This is not true of all rules. We may distinguish between fundamental rules and derivative rules. A derivative rule can be understood and justified in terms of one or more fundamental rules. But when we come to fundamental rules themselves, there cannot be any further justification. We can only appeal to the forms of our life embodied in them. The notion of the form of life is our epistemological ultimate (comparable, in some ways, to the 'objects' of Wittgenstein's *Tractatus*). And it is our final appeal. In the language of the *Tractatus*, the form of life 'shows' but does not 'say' what a fundamental rule means and whether it is followed correctly. It cannot have any justification in the usual sense; but that does not mean it is shaky or unreliable. On the contrary, it is the terminus and the ultimate of all justification.

An inference is, then, necessary if the rule of inferences is followed correctly, and whether the rule (unless it is derivative) is followed correctly is shown by the relevant form of life. Inferential necessity is, thus, explained with reference to a form of life. And this is all that we can do. "The ultimate appeal in seeking a 'foundation' for our procedure of calculating,

inferring, and so forth, can only be to 'ways in which we make comparisons and in which we act'. That is all that an account of the 'foundation' or 'source' of logical necessity can achieve".³⁵

V

So much for inferential necessity. What about axiomatic necessity? Fortunately for us, essentially the same account that applies to inferential necessity applies also to axiomatic necessity. Perhaps we could bring this out, as Robinson does,³⁶ with reference to what Aristotle says about axioms. Aristotle says³⁷ that there are principles (i. e. axioms) which cannot be proved, but which are necessarily assumed and are necessarily true. Syllogism and demonstration are based on them. They are not true because of the words, because "there can be resistance to words but not to thought." He singles out a subclass of such principles which he thinks are specially important. These are the three so-called laws of thought. They are inexorably necessary, and are what make certain other propositions necessary. The necessity that belongs to them is neither linguistic nor psychological. What kind of necessity is it then? Aristotle brings out how the law of contradiction and the law of excluded middle are necessary by showing that their rejection destroys all possibility of discourse and that even those who claim to reject them really assume them. Cratylus, for example, claims to reject these laws. But everything that he says and does, including his very argument for rejecting them, presupposes them, though he may not realize this. It does not matter whether he verbally and consciously accepts them. He implicitly accepts them, and this implicit acceptance provides a 'proof by refutation' of the laws. Cratylus may succeed, perhaps, in eliminating one particular activity or statement that commits him to the law of contradiction (though even this does not seem to be possible). But that is not enough. Cratylus must stop making any discrimination at all, as he does when he avoids walking in to a well which is on his way to Megara, and takes a detour. He has to stop being rational. If Cratylus indeed admits that the rejection of the laws of thought destroys all language and discourse, and shows this by keeping silent, Aristotle says that then he 'is no better than a vegetable'³⁸. This is not to call him names, but to indicate the measure of the dislocation of his 'way of life'. Cratylus has given up his rationality and is no longer man. Of course, strictly speaking Cratylus will not have given up his rationality merely by keeping silent. He has to cease acting also since any action would presuppose the laws of thought. And that means, he must cease existing.

In all this Aristotle is trying to show that there cannot be any justification in the usual sense of the laws of thought and that the only way

of showing how they are necessary is by pointing out how they embody our forms of life. It is because the laws of thought are an expression of the forms of our life, it is misleading to talk of accepting or rejecting them. We are not free to accept or reject our forms of life. We may not, of course, verbally and consciously accept them, but that is of no significance. Our actions, in fact all the details of our ongoing life, are a continuing testimony of their validity.

Though Aristotle said all this only about a special subclass of axioms, there is no reason for this restriction. The same can be extended to all other axioms. As modern logic has shown, the so-called laws of thought are not any more important or privileged than other axioms. We can, therefore, say that the 'foundations' of axiomatic necessity in general, like that of inferential necessity, is the fact that they express the forms of our life. We must note that when we talk of 'the forms of life', we do not mean to consider human life to the exclusion of external reality. External reality and human life are both constitutive of the forms of life. For, physical objects are what they are because of the ways in which we act and react in relation to them. We cannot conceive what physical objects would be like outside of all human experience, nor can we conceive what human life would be like bereft of all physical objects. Each determines the other and is determined by the other. Each is inextricably wound up with the other. As Wittgenstein often emphasized, thought, reality, and language are not different things, but different facets of one and the same thing.

We have, thus, explained both axiomatic necessity and inferential necessity. And since these are the only two components of mathematical necessity in general, we have answered the question with which we started, namely, "How are mathematical propositions necessary?"

NOTES

1. W. V. Quine, "On What There Is" included in Benacerraf and Putnam (eds.), *Philosophy of Mathematics* (Prentice-Hall, 1964), pp. 183-196.
2. D. A. T. Gasking, "Mathematics and the World", *Australasian Journal of Philosophy*, September 1940. Included in Benacerraf and Putnam, *ibid.* p. 393.
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4. A. J. Ayer, *Language, Truth & Logic* (London: Victor Gollancz, 2nd edn., 1946), p. 78.
5. *Ibid.* p. 16.
6. Carl G. Hempel, "On the Nature of Mathematical Truth", *The American Mathematical Monthly*, Vol. 52, 1945. Reprinted in Benacerraf and Putnam, *ibid.* p. 368.
7. A. J. Ayer, *ibid.* pp. 79-80.

8. *Ibid.* p. 84.
9. *Ibid.* p. 84.
10. *Science and Hypothesis* Ch. i. Quoted by Ayer, *ibid.* p. 85.
11. A. J. Ayer, *ibid.* pp. 85–86.
12. Alfred Tarski, *Introduction to Logic* (Second and revised edition 1946 (First published 1941)), pp. 122–30.
13. Hempel, *ibid.* pp. 369–77.
14. *Ibid.* p. 369.
15. *Ibid.* p. 375–76.
16. Ayer, *ibid.* pp. 81–82.
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21. P. F. Strawson, *Introduction to Logical Theory* (London: Methuen & Co. 1952), p.12.
22. Mitchell, *ibid.* p. 133.
23. *Ibid.* p. 123.
24. *Ibid.* p. 14.
25. For similar distinctions see Guy Robinson, "Following and Formalization", *Mind* Vol. 73 (1964), p.51.
26. Barry Stroud, "Wittgenstein and Logical Necessity", *Philosophical Review* Vol. LXXIV (1965), pp. 504–18. Included in George Pitcher (ed.) *Wittgenstein* (New York: Double Day & Co. Inc. 1966 (Anchor Books)), p. 479. Pagination here refers to Pitcher's book.
27. L. Wittgenstein, *Philosophical Investigations* (PI, for short). Tr. G. E. M. Anscombe (Oxford: Basil Blackwell; New York: Macmillan Co. 1953). Pt. I. 692. Quoted by Stroud, *ibid.* p. 481.
28. Stroud, *ibid.* p. 481. See also L. Wittgenstein, *Remarks on the Foundations of Mathematics*, (RFM, for short) ed. by G. H. Von Wright, R. Rhees and G. E. M. Anscombe. Tr. G. E. M. Anscombe (Oxford: Basil Blackwell; New York: Macmillan Co. 1956). Pt. I sec. 2.
29. RFM I, 115, quoted by Stroud, *ibid.* p. 481.
30. PI I, 185.
31. RFM I, 149.
32. Stroud, *ibid.* p. 493.
33. RFM I, 141, quoted by Stroud p. 490.
34. RFM V, 26, quoted by Stroud p. 490.
35. Stroud, *ibid.* p. 495.
36. Robinson, *ibid.* pp. 51 ff.
37. *Posterior Analytics*, Bk. I, Ch. 10.
38. *Metaphysics* 1006a15, quoted by Robinson, *ibid.* p. 51.

BOOK REVIEWS

M. N. Das, *Indian National Congress Versus the British*, Vol. 1 (1885-1918), (New Delhi, Ajanta Publications, 1978).

The book under review deals with the two way relationship between the Indian National Congress and the British during the years 1885-1918. The first thirty-five years in the history of the Congress were marked by an intense constitutional struggle with the British rulers through prayers, petitions, memoranda, representations, deputations etc. These relatively mundane and pedestrian tactics were in tune with the spirit of the time which was characterised by quiescent conformism of the Indian people. Millions of common men and women living a life of penury were crushed under a morbid existence and this made them incapable of any systematic and united action against the British. Apathy and ignorance being universal, political consciousness, patriotism and faith in the destiny of India were weak or at a low level. In these early years the Congress was neither mass based nor was the leadership capable of striking out a new and revolutionary path in its struggle against British hegemony. The leaders functioned in the old groove and they could not break away from the accepted political norms and values of the day. It was only after Mahatma Gandhi came on the Indian scene that a new strategy to combat British imperialism was developed and put into operation.

Dr. Das's study presents a factual analysis of the battle between the Congress on the one hand, and the mighty British rulers on the other hand, over a period of thirty-five years. Schematically the book is divided into eight not altogether well-conceived chapters. The first two chapters deal with the progressive involvement of the British with India after 1857 and the rise of the Indian National Congress in 1885. After the mutiny, the British government took direct interest in its Indian possession as was evident by the frequent references and discussions on Indian subjects in the British parliament. During these years the defence of India from external powers, the financial burden on India, the growing impoverishment of the masses, the need for a massive network of communications through opening of new railway lines to bring cohesiveness and stability to internal administration were problems which loomed large in the thinking of the British Indian bureaucracy. It must be pointed out here that the British bureaucracy functioned within a mental framework of rigidity and unimaginativeness. India had become a pasture land for many young Britishers who could not

make good in their own country. The argument was advanced that India had become a white man's burden but the fact was that Indians were 'odiously, mercilessly and villianously' exploited for many generations. Every office worth having in India was reserved to the English and the doors of the Civil Service and the British Indian courts were practically closed to the Indians. This resulted in the multiplication of administrative problems and the British administrators as an elite class proved unequal to the task of solving the grievances of the common people. Of the many Viceroys, Ripon's Viceroyalty was one of prudence in understanding the sentiments of the subject race, though his mild liberalism came to nothing because of bureaucratic conservatism and indifference to the pressing problems of India.

The establishment of the Indian National Congress in 1885 was an important landmark in the history of the Indian National Movement. This period was dominated by such men as Dadabhai Naoroji, Pherozshah Mehta, Ranade, Dinshaw Wacha, Badruddin Tyabji, Woomesh Chandra Bannerjee, Allan Octavian Hume, William Wedderburn and Charles Bradlaugh. The birth of the Congress created misgivings among the British Indian bureaucracy. Was it to function like an opposition political party to the government of India, or could it achieve the status of a national political party or could it be converted into a broad based mass movement against British rule? These were some of the questions that disturbed the tranquility of British officialdom. However, it must be noted that the main purpose in establishing the Congress was to create a sense of awareness among Indians of their own problems so that the functioning of the government could be more enlightened and welfare-oriented. Initially, the British approved the emergence of the Congress on the ground that it could be a forum for an authoritative statement of views on policies of the government by the educated and intelligent classes of the country. The founding fathers of the Congress praised British rule, but were not hesitant to criticise the anomalies and injustices of British rule in India. But by 1890 the British rulers began to look upon the Congress as 'a dangerous body, both in its ideology and action' while the Congress advanced the claim that it was constitutional in its words and deeds. The seeds were sown for the eventual conflict between the Congress and the British rulers.

Chapters three and four deal with the Congress demand for free political institutions matched by the indifference of the British to such popular demands and the transformation in the policy of the Congress from one of constitutional behaviour to that of agitational methods. The situation in British India had deteriorated considerably and the Congress as a vocal external body forcefully projected a new ideology that cut at the

roots of alien rule. Governmental leaders and public opinion in Britain could not ignore such a vigorous plea by an organisation that was beginning to demand constitutional advancement through a progressive elective system. But the British were against any 'hasty, inconsiderate, or imprudent' change in the elective system. They were prepared for marginal changes in the character and content of legislative proposals which could in no way affect their dominant position in India. The communal bogey was used as an excuse to deny progressive representative institutions to the Indians. This was on the understanding that India being a multi-lingual, multi-racial and multi-religious society could not withstand the pressure of reforms and revolutionary changes. The imperial policy of divide and rule became a formidable weapon in the hands of the British, given the heterogeneous character of Indian society. In such a scheme of things, the Congress was categorised as an amorphous organisation which did not have popular support. The British felt that if the Congress was discredited in the eyes of the Indian public then they could be in a strong position to meet the challenge of the rising tide of native aspirations.

Sustained and strident criticism of the policies of the British in India became the avowed objective of the Congress. Leaders like Tilak propagated militant nationalism as an antidote to foreign rule while Gokhale was very critical of its policies. The economic plight of the masses due to fiscal mismanagement, the Indian famine of 1897 and an administration which was generally insensitive to native requirements generated a great deal of Indian hostility to foreign rule. The Congress at various conferences adopted resolutions which condemned in strong language the sins of commission and omission on the part of the British Indian bureaucracy.

Chapters five, six, seven and eight deal successively with such problems as the partition of Bengal and its aftermath, the communal triangle in the form of the Congress and the Anglo-Muhammedan rapprochement, Indo-British relations during the First World War and the prelude to Indo-British confrontation which was to end only with the withdrawal of Britain from India.

The partition of Bengal by Curzon created the cause for which people could mobilise their resources to express their resentment against this decision. The mass movement though more or less constitutional in import and significance was nevertheless the first serious attempt to challenge the decision of legitimate authorities. The British were deeply perturbed by the implication of these developments which had the potentiality to shake the foundations of the British *raj* in India. In order to contain the growing popularity of the Congress, the British in India developed the strategy of

active alignment with the Muslims as a counterweight to dormant Hindu nationalism. In the larger interests of British rule an active policy of playing both the ends against the middle was the hallmark of British policy till the end of their rule in India.

The exigencies of the First World War and the temporary rapprochement between the Congress and the Muslim league led to the demand for Home Rule. The stage was set for the British to make concessions to placate Indian demands for self-rule which eventually resulted in the freedom of India in 1947.

The history of the tenuous relationship between the Congress and the British was one of dissensions and controversies that held the attention of the Indian people. From the very beginning the British propounded time-honoured principles to provide an ethical foundation to the British empire. In spite of their best efforts in this direction, the fact was that the built-in contradictions of the British empire inexorably led to its ultimate self-destruction. The spawning gulf between the rulers and the ruled further widened because of this inherent capacity for self-annihilation. Western education with its concomitant liberal ethos gave rise to a class of natives who in the light of their political knowledge regarded alien rule as a solemn curse. Western educated Indians systematically and relentlessly exposed the hiatus between what the Britishers preached politically and how they acted administratively. The Congress provided an opportunity for Indian leaders to strive for internal democracy, fearless expression of individual views, a secular and composite society and polity. The Congress as an umbrella movement harboured men and women who mostly agreed with each other but on occasions differed without affecting their loyalty to the organisation. This book therefore, represents an attempt to tell the first part of the story, which has come to be called the Indian revolution.

One major criticism that could be levelled against this book is that Dr. Das has stuck very closely to his material with the result that the range of his vision and the depth of his interpretation are limited. He had on his hands materials for a good book by combining it with scholarship and penetrating insight. Primary source material collected at the British Museum Library, London if it had been used in a creative manner could have given added weight to the work. Unfortunately, the author does not come to grip with the subject of his study. He has failed to make the book attractive and readable. The style is clumsy and the work is monotonous and jarring because of repetition of similar ideas in many places in the book.

Yoga and Indian Philosophy : by Karel Werner, published by Motilal Banarasidas, Delhi: First ed.: 1977; pp xii + 192; price Rs 40/—

Popular writing on Yoga from physiological and psychological stand-points is already enormous. But less work, still less good work, on it is done from philosophical standpoint than it actually deserves. Though many scholars, including the Western, have written voluminously on Indian philosophy and religions, few have tried to show Indian philosophy and religions and Yoga are interdependent, each feeding the other. Fortunately, Karel Werner tries to answer both of these needs in this small, neat, yet useful book.

An important aim—which is in fact one of the merits—of this book is an attempt to put Indian philosophy and Yoga in modern existentialist and phenomenological framework. The author recognises that Western philosophy, till as recently as Kierkegaard, had engaged itself in speculative pursuits concerning world, knowledge, etc, thus completely losing sight of the individual and his existential situations, and that the existentialist and phenomenological questions raised by some recent Western philosophers “have in Indian philosophy always been a legitimate concern for inquiry” (p.18). It is true that modern writers on Indian philosophy have noted the existentialist leanings of Indian philosophy, but they forget to emphasize them in the course of their conceptual elaborations of other ideas.

The author rightly notes (ch. I) that constant awareness of despair, death and freedom which is a prerequisite of “authentic life” is the starting point of philosophy in India. This does not, however, mean that Indian philosophy emphasizes man to the exclusion of the objective world. On the contrary, for it man and the world are made for each other. In fact, the fundamental presupposition of all Indian philosophical schools except that of Cārvāka is that the world is not an unconcerned and alien something into which man is hopelessly “thrown”, but an arena created for him with a view to uncovering his true personality. Indian philosophers do not have a worldly cure for the everrecurring *tapatrayas*, or “despair”, to use an existentialist term; nor do they see in death an inevitable and meaningless end. For them death is a “strong reminder (for man) to transcend limited existential situations” (p. 19), to create and form his essence, to live “the life of Yoga” which is the Indian counterpart of “authentic existence” (p. 20). Here it must be noted that Yoga means not merely the Yoga of

Patañjali which has nothing to do with other schools like Advaita, Buddhism, Tantra, etc, but a technique practised by Advaitins, Buddhists and others in order to attain 'real existence' involving occasional suprainTELlectual experiences of metaphysical truths and constant overwhelming peace. In other words, according to the author, existentialist attitude is the basis of our Yoga adventure.

In ch. V the author surmises that Yoga as a technique of transcending the limitations was prevalent in the pre-Vedic Harappan culture (cir. 2700 B. C.). He presents a three-pronged argument to show the non-Vedic origins of Yoga. 1) The Vedic Aryans to whom religion was ritualism were unaware of *dhyana* which later the Upanisads recognised as an indispensable means to self-realisation. Some references in the Vedas to the Yogic practices lead us to assume that Yogic practices were a by-product of the ritual observances. "But this assumption is wrong, for other hymns give evidence of Yogis who were independent of the religion of the time," e. g. *Kesin* (p. 104). 2) "A number of excavated seals (of Harappa) show pictures of a figure seated in a Yoga posture . . ." (p 103). 3) The *Vratyas* who are believed to have created a culture parallel to the Vedic and who were "undoubtedly... undesirable rivals" of the *Brahmans*, had among them solitary wandering ascetics and Yogis. "Even the group practices of *Vratyas* contained elements of Yoga practices, particularly the kind later known as *Tantric Yoga* (p. 106). Since by then the Yogis were held in high esteem, "the *Brahmans*, however narrow-minded some of them have been, could not entirely ignore the Yoga tradition.....*Brahmanism* in its aspiration to become universal was forced to include the ideal of the ascetic and Yogic way of life....in its newly elaborated scheme of life (*asramas*)" (p. 107).

The author further argues that the Upanisadic seers, having realised the futility of the speculative method in philosophy and often inspired by mystical visions recommended the latter as the final means to the acquisition of metaphysical truths, such as *Brahman*, *Atman*, and their identity expressed laconically in statements like 'I am *Brahman*', etc.

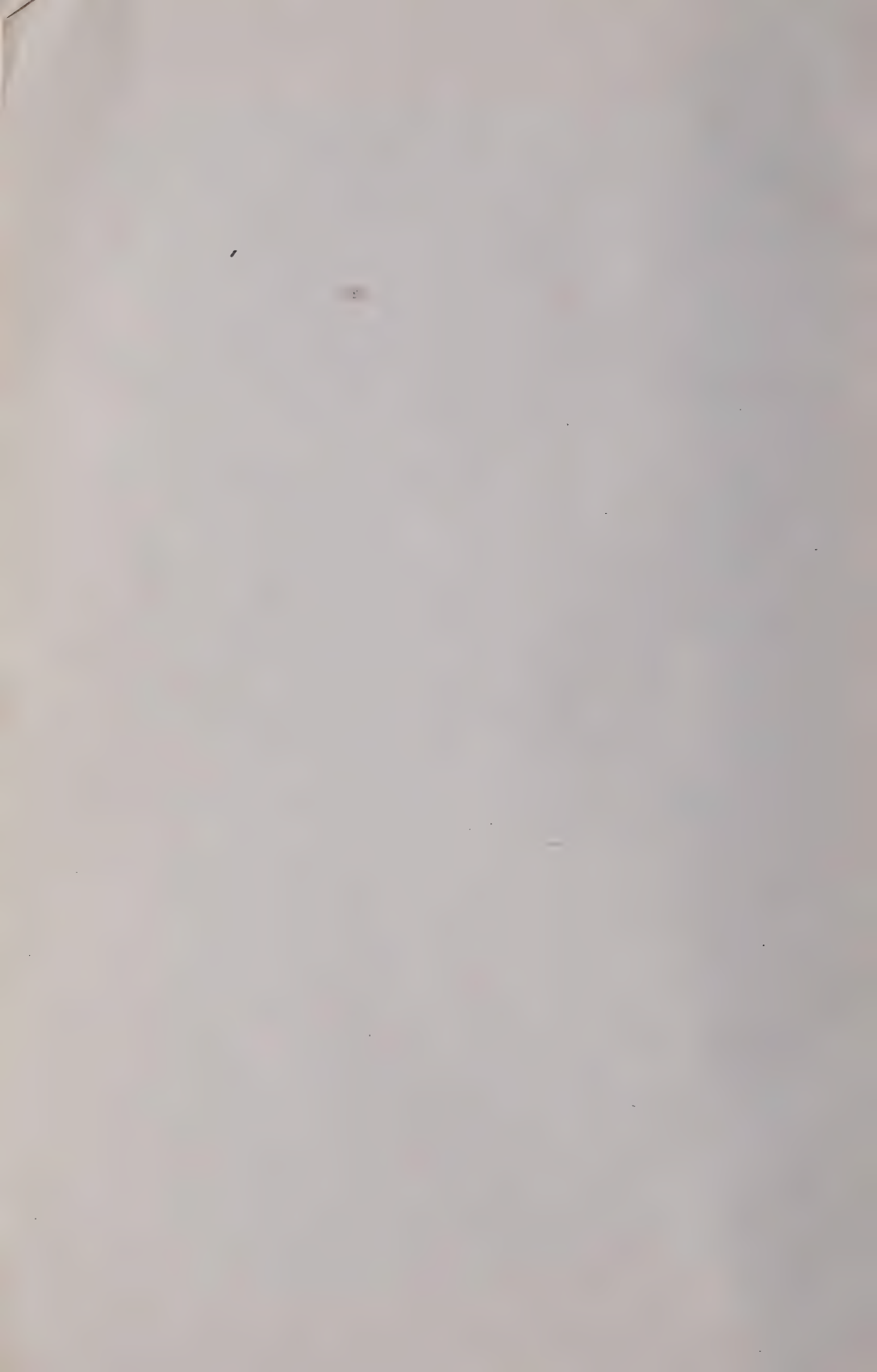
While the I chapter intends to show that there is a philosophy (recognised here as existential) at the basis of Yoga, the V chapter intends to show that Yoga is the root of all Indian philosophies. So the author proceeds to argue that the Yogis who interpret their visions of metaphysical truths try to describe them in a rational way, often combining logic with imagination. That is why though Yoga is essentially a technique of transcending limitations it has stood above all schools and religions and become an independent system of philosophy. Precisely for the same reason the diverse interpretations of the experience have given rise to philosophical schools like Advaita, Buddhism, etc.

Another contention of the author (ch. VI) is that though Yogic practices were prevalent in the pre-Vedic Harappan culture, the credit of systematizing them (in the form of Eight-fold path) goes to Buddha, though the system of Yoga presented by Patañjali which followed later is definitely superior to it. Here he not only makes a clear comparison between these two, but also distinguishes the various stages of both the means and the end (*samadhi*) involved in these two systems in modern psychological terms. He also discovers that the *Gita* which is "the best codification of the popularised Yoga path" presents Yoga in four forms, *Karma-Yoga*, *Bhakti-Yoga*, *Jnana-Yoga* and *Dhyana-Yoga*. He has also given a small note on *Kundalini-Yoga*. Ch. VI which forms the backbone of the book is an index to the scholarship and analytic ability of the author.

Chapters III and IV which deal with the different Indian concepts of human destiny, and of final salvation, respectively, are complementary to what has been discussed in Chapters I and V. But how either the sketchy biographies of such modern Indian saints as Ramakrishna (ch. VII) or the account of the different Indian cosmological notions (ch. II) fit in this otherwise good book remains somewhat unclear. Similarly, the author's attempt (though fruitful to some extent) to trace the reasons for the popularity of Yoga in the West or his eulogy on Yoga not only does not a bit increase our knowledge of Indian Philosophy or its relation to Yoga which happens to be the central theme of this book, but also, like the many printing mistakes (in and out of Errata) distracts our attention.

On the whole it is a valuable contribution to Indian philosophy in general and Yoga studies in particular.

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